



The Audio Playground Synthesizer Museum

Brings you a recreation of the Original 1970,

Hammond Organ Introductory Section Service Manual.

HO-495-1-2500

This Manual was put out Originally to introduce the Hammond service engineers with a description of all the Hammond Organ models to date. (1970 that is.)

We have recreated it for the pupose of having a historical version of this original document in a electronic form For education.

Please note that all the prices are the prices in 1970. and should not be used as a way to value an instrument. And all the copyrights stay with there original owners.

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SECTION 1

SERVICE MANUAL

INTRODUCTORY SECTION



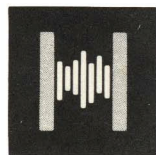
HAMMOND ORGAN

1740 N. 25th Avenue • Melrose Park, Ill. 60160

SERVICE MANUAL

FOR THE

SERVICE ENGINEER



**HAMMOND ORGAN COMPANY
DIVISION OF HAMMOND CORPORATION**

1740 N. 25th Avenue • Melrose Park, Ill. 60160

FOREWORD

The Hammond Organ is a product of a company which enjoys a world-wide reputation as a manufacturer of precision electrical devices. The manufacturing facilities devoted to the production of the organ are the finest in existence for this type of work. Thus, a background of specialized engineering experience plus modern fabricating methods are behind the Hammond Organ guarantee.

The Hammond Organ Company, in its guarantee, gives the customer assurance that adequate facilities will be available at all times to service the instrument. This manual is designed to supply the service technician with all information essential to his rendition of this service. It is designed to serve three purposes: first, to help make effective installations; second, as a guide in proper maintenance; and third, to provide instructions on making repairs if they become necessary.

H A M M O N D O R G A N C O M P A N Y

1740 North 25th Avenue
Melrose Park, Illinois 60160

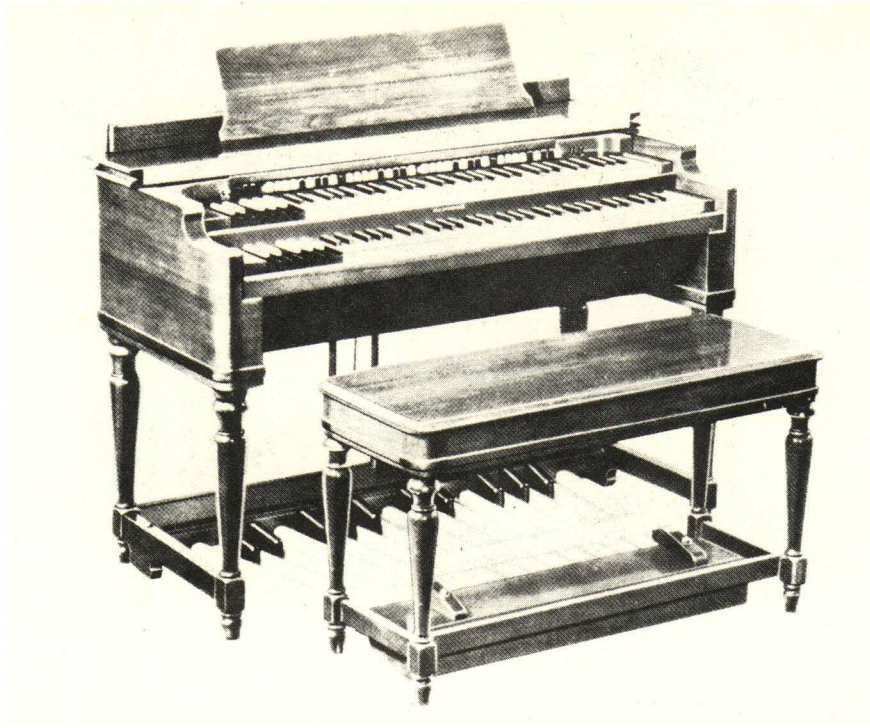
NOTICE

The illustrations on the following pages are to acquaint sales and service personnel with all types of Hammond Organs and Tone Cabinets that are in service.

As to the availability of any of these items, we refer you to our current catalog and price list.

Prices shown on the following pages are the highest list price during the production period indicated.

A separate service manual is printed on all products shown on pages prefixed SC.



SPECIFICATIONS MODEL A - AB

IN PRODUCTION: June 1935 to October 1938.

SELLING PRICE: \$1,193.00. With Model A-20 Tone Cabinet \$1,250.00.

DIMENSIONS: Closed: 48-1/2" wide, 37-5/8" high, 24" deep.
Open: 48-1/2" wide, 47" high, 38-1/2" deep.

FINISH: American walnut.

MANUALS: Swell and Great, 61 playing keys each.

PEDAL

KEYBOARD: 25-note, radiating; detachable.

TONAL 9 preset keys and 2 sets of 9 adjustable harmonic drawbars

CONTROLS: for each manual; 2 adjustable drawbars (16' and 8') for pedals.

EXPRESSION: One expression pedal controlling Swell, Great, and Pedals.

FEATURES: One tone generator. One adjustable tremulant affecting both manuals and pedals equally.

AC INPUT: Approx. 30 watts, plus wattage required by Tone Cabinets.

WEIGHT: As illustrated, approx. 359 pounds.

Serial No. 2501 and above used larger woodwork case designated as AB. See B series for case dimensions and weight.



SPECIFICATIONS HOME MODELS BC, BV, BCV, B-2, AND B-3

DIMENSIONS: Closed, without pedal keyboard 48-3/8" wide, 28-3/4" deep, 38-3/8" high. Open, with pedal keyboard and bench: 48-3/8" wide, 49-1/2" deep, 46" high.

MODEL AB: Same as Model A but enclosed in larger woodwork. One tone generator, one adjustable tremulant affecting both manuals and pedals equally. Also see Model A for price and production dates.

MODEL BC: Same as Model AB but with one additional generator and appropriate switching to create chorus effect.

IN PRODUCTION. December 1936 to November 1942.

SELLING PRICE: \$1,342.00 - Walnut.

MODEL BV: Same as Model B but equipped with Hammond Vibrato providing three degrees of true Vibrato and "off" position, effective simultaneously on both manuals, together with Vibrato Chorus usable in three different degrees and "off".

IN PRODUCTION: April 1946 to December 1949.

SELLING PRICE: \$1,881.00 - Walnut.

MODEL BCV: Same as Model BC but has Hammond Vibrato and Vibrato Chorus.

Noneproduced. Converted by Vibrato Kit added after 1945. Kit price - \$275.00.

MODEL B-2: Same as Model BV but with controls which provide Vibrato on either or both manuals. Also additional control for "normal" or "soft" overall volume.

IN PRODUCTION: December 1949 to December 1954.

SELLING PRICE: \$2,288.00 - Walnut

SPECIFICATIONS HOME MODELS BC, BV, BCV, B-2, AND B-3 (Continued)

MODEL B-3: Same as Model B-2 but with Hammond Percussion feature.

IN PRODUCTION: January 1955 to

SELLING PRICE: \$2,745.00 - Walnut. \$2,835.00 - Cherry.

MANUALS: Swell and Great, 61 playing keys each.

PEDAL

KEYBOARD: 25-note radiating, detachable.

TONAL 9 preset keys and 2 sets of 9 adjustable harmonic drawbars
CONTROLS: for each manual. 2 adjustable drawbars (16' and 8') for
pedals.

EXPRESSION: One expression pedal controlling Swell, Great and Pedals.

AC INPUT: Approximately 30 to 50 watts, plus wattage required by
Tone Cabinets.

WEIGHT: As illustrated, approximately 425 lbs.



SPECIFICATIONS HOME MODEL B-A

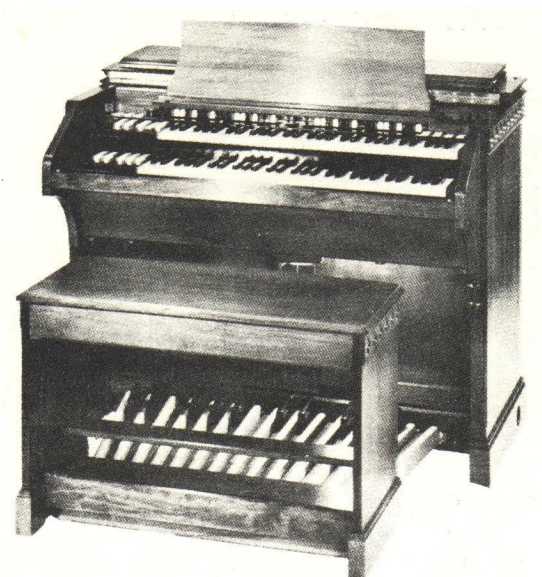
IN PRODUCTION: January 1938 to December 1938.

SELLING PRICE: \$2,000.00.

This instrument is tonally and electrically similar to the Model BC Console described on the preceding pages.

In addition to normal playing it could also be played with rolls similar to a player piano.

Floor dimensions are also similar to the BC with a somewhat higher back section to accommodate pneumatic action.



SPECIFICATIONS CHURCH MODELS C, CV, C-2, C-3, D AND DV

DIMENSIONS: Closed, without pedal keyboard: 48-3/4" wide, 29" deep, 38-3/4" high. Open, and with pedal keyboard and bench: 48-3/4" wide, 47" deep, 46" high.

MODEL C: Same as Model AB but with different style woodwork. One tone generator, one adjustable tremulant affecting both manuals and pedals equally.

IN PRODUCTION: September 1939 to June 1942.

SELLING PRICE: \$1,193.00 - Walnut.

MODEL CV: Same as Model C but equipped with Hammond Vibrato, including Vibrato Chorus.

IN PRODUCTION: September 1945 to December 1949.

SELLING PRICE: \$1,782.00 - Walnut.

MODEL C-2: Same as Model CV but with controls which provide Vibrato on either or both manuals. Also additional control for "normal" or "soft" overall volume.

IN PRODUCTION: December 1949 to December 1954.

SELLING PRICE: \$2,178.00 - Walnut.

MODEL C-3: Same as Model C-2 but with Hammond Percussion feature.

IN PRODUCTION: January 1955 to

SELLING PRICE: \$2,545.00 - Walnut. \$2,630.00 - Oak.

Later version in both finishes less quatrefoil.

SPECIFICATIONS CHURCH MODELS C, CV, C-2, C-3,D AND DV (Continued)

MODEL D: Same as Model C but with one additional tone generator and appropriate switching to create chorus effect. Similar to Model BC.

IN PRODUCTION: June 1939 to November 1942.

SELLING PRICE: \$1,342.00 - Walnut.

MODEL DV: Same as Model D but with Hammond Vibrato, including Vibrato Chorus. See BCV.

None produced, Kit added in field.

MANUALS: Swell and Great, 61 playing keys "ch.

PEDAL

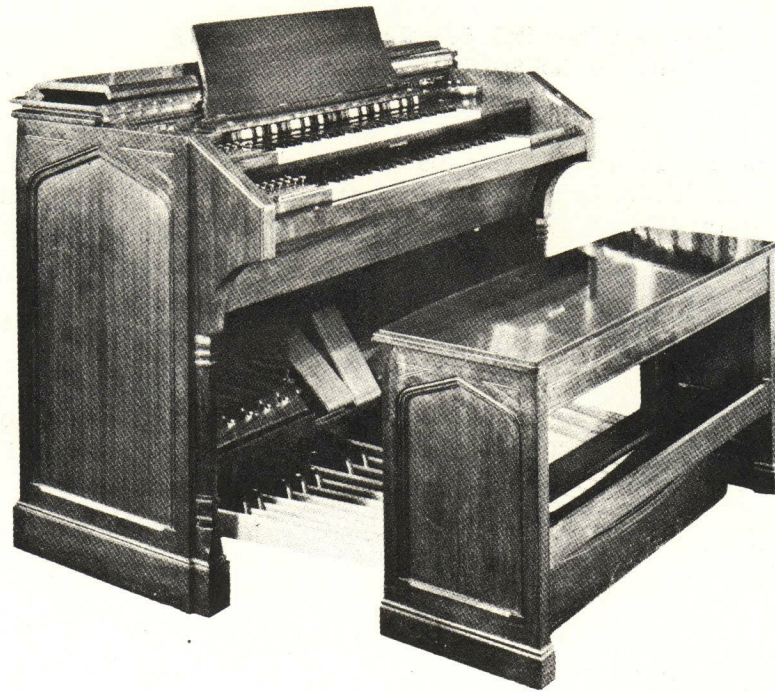
KEYBOARD: 25-note, radiating, detachable.

TONAL 9 preset keys and 2 sets of 9 adjustable harmonic drawbars
CONTROLS: for each manual; 2 adjustable drawbars (16' and 8') for pedals.

EXPRESSION: One expression pedal controlling Swell, Great, and Pedals.

AC INPUT: Approximately 40 to 60 watts, plus wattage required by Tone Cabinets.

WEIGHT: As illustrated, approximately 450 lbs.



SPECIFICATIONS CONCERT MODEL E

DIMENSIONS: Closed, without pedal keyboard: 57" wide, 40" high, 29" deep. Open, and with pedal keyboard: 57" wide, 46-7/8" high, 47-5/8" deep.

IN PRODUCTION: July 1937 to July 1942.

SELLING PRICE: \$1,980.00.

FINISH: American Walnut.

MANUALS: Swell and Great, 61 playing keys each.

PEDAL KEYBOARD: 32-note, concave, radiating, detachable, built to AGO specifications.

TONAL CONTROLS: 9 preset buttons and 2 sets of 9 adjustable harmonic drawbars for each manual; for pedals - 4 numbered and labeled toe pistons 2 adjustable drawbars (16' and 8') and Great to Pedal 8' coupler.

EXPRESSION: 2 expression pedals, one for Swell and one for Great and Pedals. Visual position indicators of sliding rod type.

FEATURES: Separate adjustable tremulants for Swell and Great Manuals. Standard Main and Chorus generator units; on and off switch for Chorus.

AC INPUT: Approximately 50 watts, plus wattage required by Tone Cabinets.

WEIGHT: As illustrated, approximately 579 lbs.

U.S. GOVERNMENT PURCHASED EQUIPMENT
MODEL G CONSOLE AND TONE CABINET

The Model G consoles and tone cabinets were built for the Government, and now will be found in use throughout the United States and foreign countries in chapels of all services, Officers Clubs, or recreation service buildings.

The console is identical to the Model D except for the decorative woodwork and provision for detachable handles.

The tone cabinet (Model G-40) contains two amplifiers and four speakers mounted in a horizontal row and is electrically similar to Model B-40 tone cabinet, but has a reverberation control unit.

Produced from June 1941 to November 1944.

MODEL C-2G, C-3G CONSOLES AND HR-40G

These consoles are identical in appearance to the C-2 and C-3 except that a monitor speaker is located on the lower left hand side.

The preamplifier in the C-2G is designed to operate the monitor speaker. In the C-3G the preamplifier is the same as in the C-3. A small auxiliary amplifier drives the monitor speaker. In both Models, B+ voltage from the tone cabinet is required to make the monitor speaker operative.

The HR-40G is identical to the HR-40 except that it is equipped with a standard 6 conductor cable which must be used in conjunction with the C-2G console.

C-2G in production June 1952 to March 1953.

C-3G in production January 1955 to ?



SPECIFICATIONS CONCERT MODELS RT, RT-2, AND RT-3

DIMENSIONS: Closed, without pedal keyboard: 57" wide, 40" high, 29" deep. Open, and with pedal keyboard: 57" wide, 46-7/8" high, 47-5/8" deep.

CONCERT MODEL RT: Equipped with Hammond Vibrato providing three degrees of true Vibrato and an "off" position, effective simultaneously on both manuals, together with Vibrato Chorus usable in three different degrees and "off".

IN PRODUCTION: July 1949 to September 1949.

SELLING PRICE: \$2,475.00 - Walnut.

CONCERT MODEL RT-2: Same as Model RT but with controls which provide Vibrato on either or both manuals, also additional control for "normal" or "soft" overall volume.

IN PRODUCTION: November 1949 to January 1955.

SELLING PRICE: \$2,970.00 - Walnut.

CONCERT MODEL RT-3: Same as Model RT-2 but with Hammond Percussion feature.

IN PRODUCTION: January 1955 to

SELLING PRICE: \$3,450.00 - Walnut. \$3,555.00 - Oak.

SPECIFICATIONS CONCERT MODELS RT, RT-2, AND RT-3 (Continued)

MANUALS: Swell and Great, 61 playing keys each.

PEDAL 32-note, concave, radiating, detachable, built to AGO
KEYBOARD: specifications.

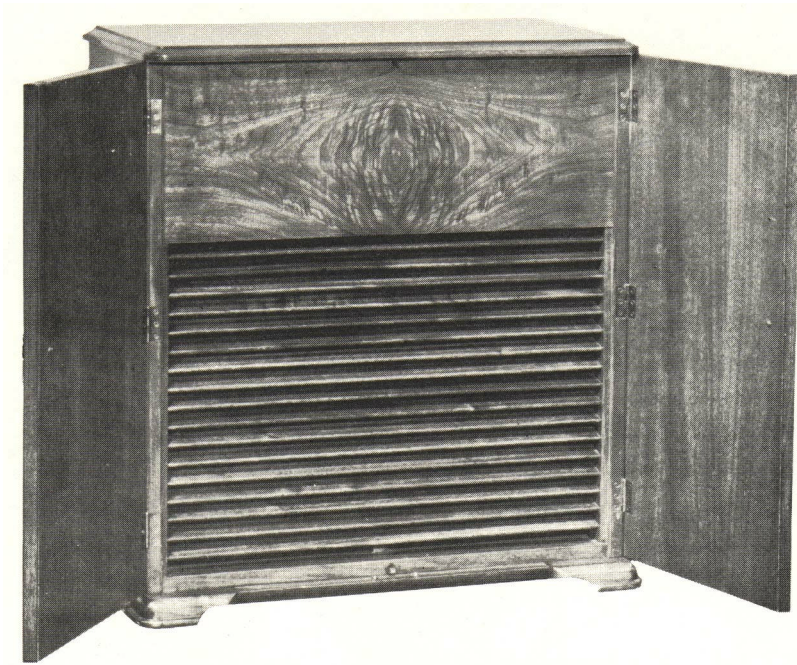
PEDAL SOLOHas pedal solo system with separate volume control,
SYSTEM: providing following solo effects; 32-foot Bourdon,
32-foot Bombarde, 16-foot Solo, 8-foot Solo, 4-foot
Solo, 2 and 1-foot Solo. Also tablets for Mute Control
and Pedal Solo On.

TONAL 9 preset keys and 2 sets of 9 adjustable harmonic drawbars
CONTROLS: for each manual; for pedals, two adjustable drawbars
(16' and 8').

EXPRESSION: One expression pedal, controlling Swell, Great, and Pedals.

AC INPUT: Approximately 110 to 130 watts, plus wattage required by
Tone Cabinets.

WEIGHT: As illustrated, approximately 525 lbs.



MODEL A-20 TONE CABINET

SPECIFICATIONS

IN PRODUCTION: October 1935 to July 1939.

SELLING PRICE: \$165.00.

DIMENSIONS: 27" wide, 30" high, 15" deep.

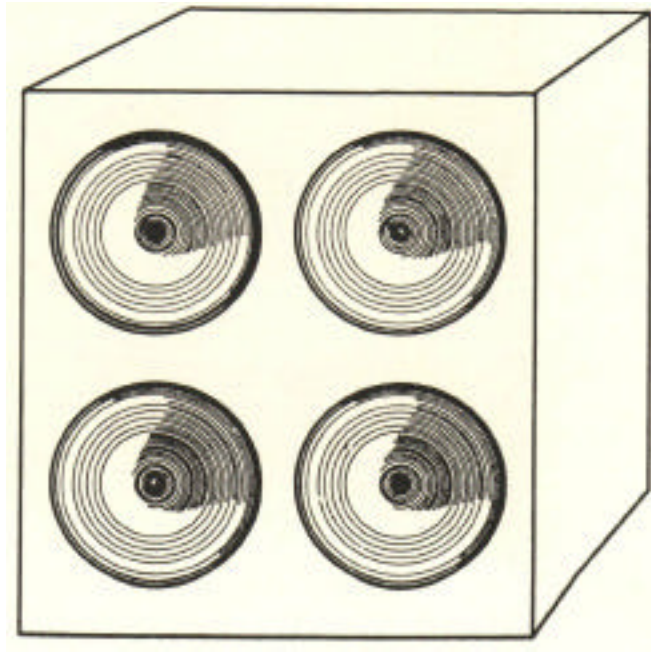
FINISH: American Walnut.

WEIGHT: 113 pounds.

OUTPUT: 20 watts - 1 amplifier, 2 - 12" speakers.

AC INPUT: Approximately 180 watts.

This small decorative tone cabinet is used for homes, mortuaries, and small churches, seating not over 100 persons, where a limited amount of power is required.



MODEL A-40 TONE CABINET
SPECIFICATIONS

IN PRODUCTION: October 1935 to October 1947.

SELLING PRICE: \$225.00.

DIMENSIONS: 26-1/2" wide, 28" high, 19" deep.

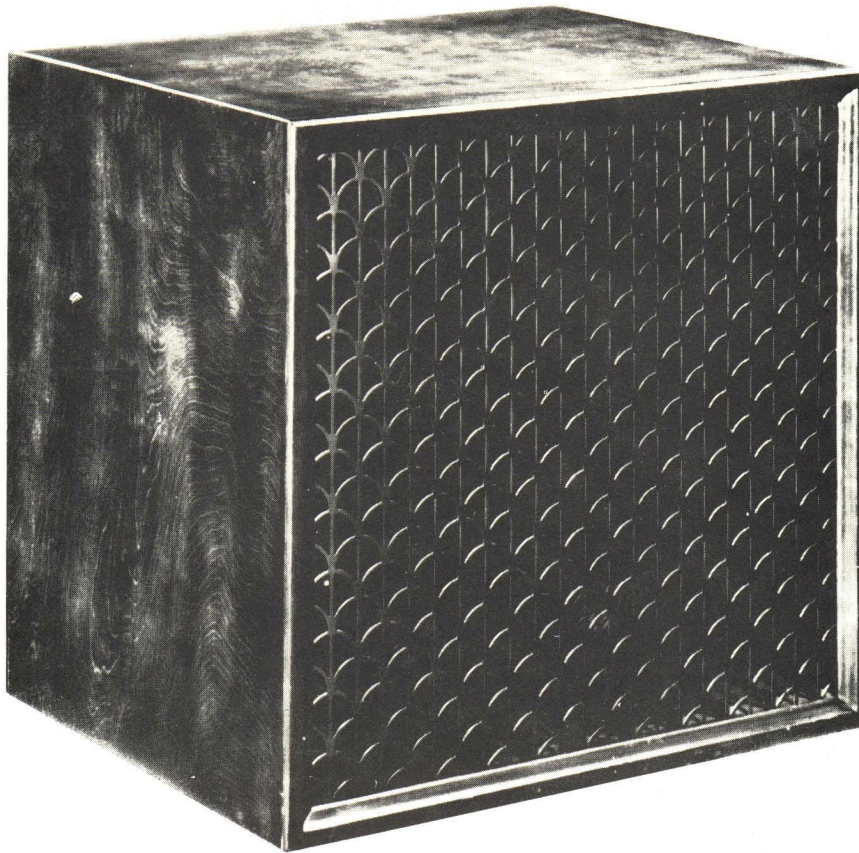
FINISH: Black lacquer.

WEIGHT: 155 pounds.

OUTPUT: 40 watts - 2 amplifiers, 4 - 12" speakers.

AC INPUT: Approximately 360 watts.

A non-decorative, double-strength cabinet, designed for use in banks of four or more, in large installations where the cabinets are concealed.



MODEL B-40 TONE CABINET
SPECIFICATIONS

IN PRODUCTION: November 1936 to December 1947.

SELLING PRICE: \$247.00.

DIMENSIONS: 36" wide, 36" high, 28-1/2" deep.

FINISH: Walnut stain.

WEIGHT: 225 pounds.

OUTPUT: 40 watts - 2 amplifiers, 4 - 12" speakers.

AC INPUT: Approximately 360 watts.

A semi-decorative, double-strength cabinet designed for use individual] or in groups. The B-40 is found desirable for many churches and for large installations, for it may be used appropriately in almost any setting.



MODEL C-20, CX-20, AND CXR-20 TONE CABINET
SPECIFICATIONS

MODEL C-20:

IN PRODUCTION: October, 1937 to March, 1942.

SELLING PRICE: \$270.00

MODEL CR-20: Equipped with Reverberation Unit.

IN PRODUCTION: 1939 - 1942.

SELLING PRICE: \$407.00

MODEL CX-20: Equipped with rotor tremulant. See Page TC-7 for picture of this feature.

IN PRODUCTION: January, 1939 to March, 1942.

SELLING PRICE: \$335.00

MODEL CXR-20: Equipped with rotor tremulant and reverberation unit.

IN PRODUCTION: November, 1939 to March, 1942.

SELLING PRICE: \$473.00

DIMENSIONS: 29" wide, 53" high, 18-1/4" deep.

FINISH: Matched American butt walnut and antique brass hardware.

WEIGHT: 153 lbs.

OUTPUT: 20 watts, 1 amplifier, 2 - 12" speakers.

AC INPUT: Approximately 200 watts.



MODEL C-40 TONE CABINET
SPECIFICATIONS

IN PRODUCTION: June 1936 to December 1937.

SELLING PRICE: \$330.00.

DIMENSIONS: 38" wide, 71" high, 27-1/2" deep.

FINISH: Walnut stain.

WEIGHT: 313 pounds.

OUTPUT: 40 watts - 2 amplifiers and 4 - 12" speakers.

AC INPUT: Approximately 360 watts.

The C-40 cabinet has a wide variety of applications. It is especially adapted for use in enclosures where the indirect projection of sound is desirable. Very often the ceiling and floor are the only "live" or reflecting surfaces and this type cabinet makes use of these.

The C-40 cabinet is used individually or in groups of two or more.



MODEL. D-20 TONE CABINET MODEL DXR-20 TONE CABINET
SPECIFICATIONS

MODEL D-20: Tonally identical with Model C-20, the D-20 fills a need for an inexpensive cabinet for use in a wide variety of installations where decorative qualities are a secondary consideration.

IN PRODUCTION: October 1937 to March 1952.

SELLING PRICE: \$181.00.

MODEL DX-20: Equipped with rotor tremulant.

IN PRODUCTION: October 1938 to June 1942.

SELLING PRICE: \$249.00

MODEL DR-20: Equipped with reverberation unit.

IN PRODUCTION: August 1939 to March 1952.

SELLING PRICE: \$319.00.

MODEL DXR-20: Equipped with rotor tremulant and reverberation unit.

IN PRODUCTION: April 1939 to June 1945.

SELLING PRICE: \$385.00.

DIMENSIONS: 28" wide, 56" high, 16-3/4" deep.

FINISH: Face and sides of American walnut.

WEIGHT: 149 pounds - D-20; 171 pounds - DR-20; 178 pounds - DXR-20.

OUTPUT: 20 watts - 1 amplifier, 2 - 12"speakers.

AC INPUT: Approximately 200 watts.



MODEL ER-20 TONE CABINET
SPECIFICATIONS

IN PRODUCTION: March 1947 to December 1950.

SELLING PRICE: \$462.00.

DIMENSIONS: 31" wide, 38-3/4" high, 18" deep.

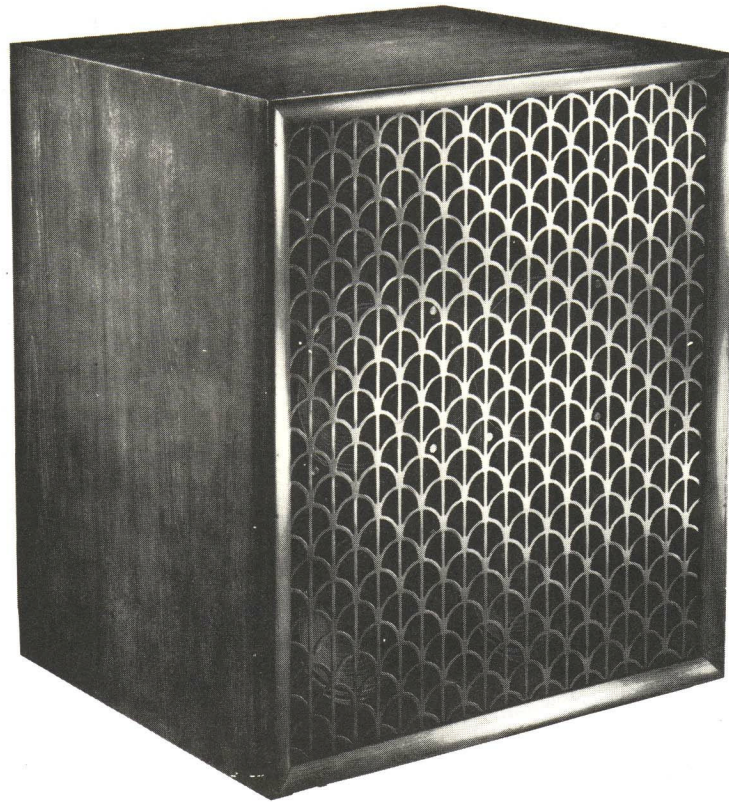
FINISH: Walnut.

WEIGHT: 144 pounds.

OUTPUT: 20 watts - 1 amplifier, 2 - 12" speakers.

AC INPUT: Approximately 200 watts.

The ER-20 tone cabinet is electrically equivalent to the DR-20 tone cabinet. However, the woodwork is designed for use in homes where a more artistic cabinet is preferred.



MODEL F-40 AND FR-40 TONE CABINET

IN PRODUCTION: January 1948 to December 1957.

SELLING PRICE: F-40 - \$406.00. FR-40 - \$560.00.

DIMENSIONS: 32-15/16" wide; 39-3/16" high; 28-3/8" deep.

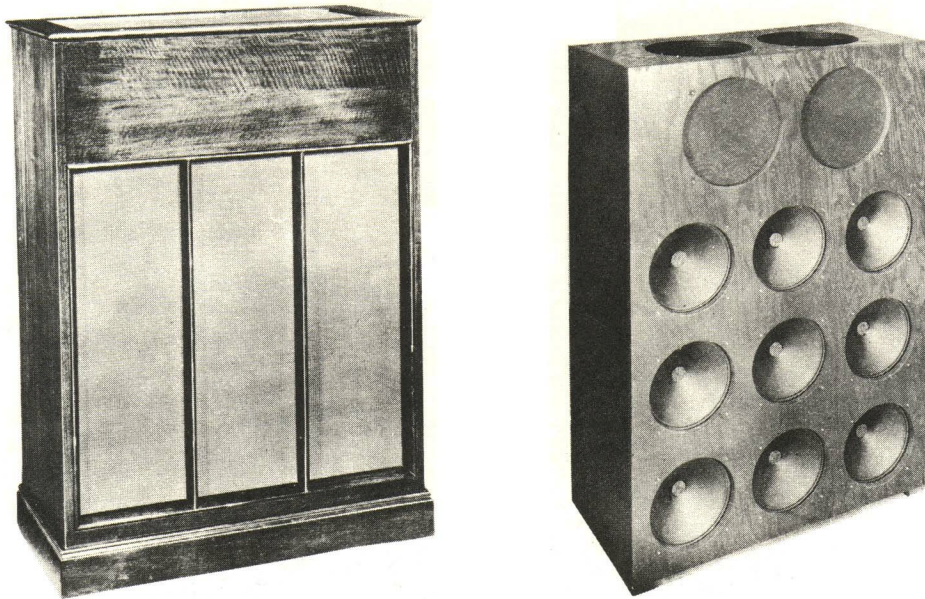
FINISH: Walnut stain.

WEIGHT: F-40 - 208 lbs. FR-40 - 228 lbs.

OUTPUT: 40 watts - 2 amplifiers, 4-12" speakers.

AC INPUT: Approximately 300 watts.

The F-40 replaces the B-40 tone cabinet. Dimensions of the woodwork have been altered so that a reverberation unit may be accommodated. With the addition of the reverberation unit it is designated as FR-40.



MODEL H-40, HR-40, K-40, AND KR-40 TONE CABINET

MODEL H-40 AND HR-40:

IN PRODUCTION: October 1948 to February 1960.

SELLING PRICE: H-40 - \$517.00 - Walnut.

HR-40 - \$585.00 - Walnut.

HR-40 - \$605.00 - Oak.

DIMENSIONS: 33-1/8" wide; 48" high; 16-7/8" deep.

MODEL K-40 AND KR-40:

IN PRODUCTION: December 1957 to February 1960.

SELLING PRICE: K-40 - \$427.00, KR-40 - \$495.00.

DIMENSIONS: 32-1/2" wide; 48" high; 15-7/8" deep,

WEIGHT: K-40 and H-40 - 147 lbs.

KR-40 and HR-40 - 162 lbs.

AC INPUT: H-40 Early Units - 234 watts. Later units - 175 watts.

HR-40 Early Units - 240 watts. Later units - 175 watts.

K-40 and KR-40 - 175 watts.

OUTPUT: 40 watts - 1 amplifier, 11 speakers; 2-12", 9-10".

The H series tone cabinets are designed for use in all types of installations; church, home, school and entertainment places. Their response is non-directional, with the high frequencies projected vertically and the low frequencies horizontally.

MODEL H-40, HR-40, K-40, AND KR-40 TONE CABINET (Continued)

The K series tone cabinets are electrically and tonally similar to the H series but are constructed in a utilitarian cabinet. Usually used in concealed installations. The two treble speakers usually mounted on top can be placed on the front baffle for use in chambers where vertical radiation would be restricted.

The tone cabinet contains separate amplifier sections for treble and bass response with cross-over point at 200 cycles.

Amplifiers are not interchangeable with amplifiers in other model tone cabinets.

The HR-40 and KR-40 have reverberation on treble section only. Reverberated signal cannot be fed to another tone cabinet.

Earlier models of the H series tone cabinet were equipped with separate treble and bass amplifier units. These amplifiers were later consolidated in one unit.

For weight of earlier units add 31 pounds to above figures.



MODEL JR-20 TONE CABINET
SPECIFICATIONS

IN PRODUCTION: March 1951 to February 1959,

SELLING PRICE: \$452.00 - Walnut. \$472.00 - Oak.

DIMENSIONS: 29-3/4" wide; 39-3/4" high; 15-7/8" deep.

WEIGHT: 120 pounds.

AC INPUT: 100 watts.

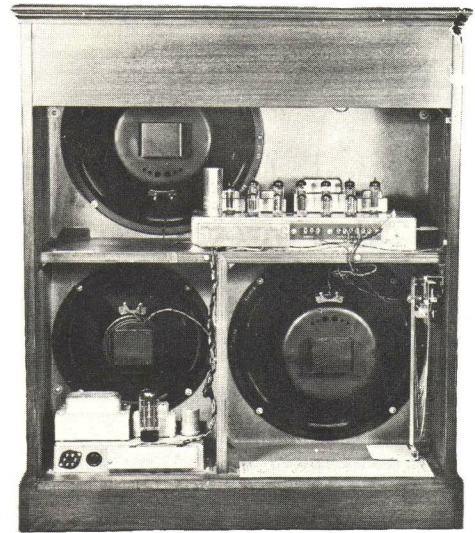
OUTPUT: 20 watts - 1 amplifier - 1 treble speaker - 12"
4 bass speakers - 10"

The JR-20 tone cabinet is ideal for the home, small church, mortuary and entertainment places. Its response is non-directional with the highs projected vertically and the lows horizontally.

The amplifier is constructed with separate sections for bass and treble response with a cross-over point at 200 cycles. A reverberation preamplifier is also incorporated in the amplifier chassis and reverberation is obtainable in three degrees on each channel, independent of each other. The reverberation signal cannot be transferred to other tone cabinets.



MODEL PR-20 FRONT



MODEL PR-20 REAR

SPECIFICATIONS

IN PRODUCTION: February 1959 to July 1963.

SELLING PRICE: Walnut - \$485.00
Oak - \$505.00
Provincial - \$505.00

DIMENSIONS: 31-1/2" wide; 37-1/2" high; 18" deep.

WEIGHT: 118 lbs.

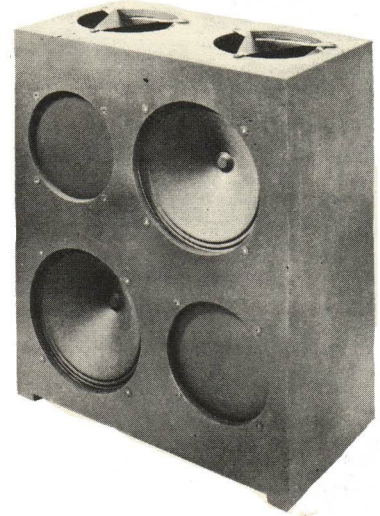
AC INPUT: 185 watts.

OUTPUT: 20 watts.

Equipped with two 15" speakers for bass tones and two 12" speakers for the treble tones. They provide three dimension amplification which creates a beautiful reverberation effect in stereo. These cabinets feature the new and improved Hammond Reverberation control for both bass and treble tones. Convenient outside controls make it easy to change the degree of reverberation for each.



MODEL P-40



MODEL Q-40

MODEL P-40:

IN PRODUCTION: June 1959 to April 1963.

SELLING PRICE: \$540.00 - Walnut. \$560.00 - Oak. \$560.00 - Provincial.

DIMENSIONS: 31-1/2" wide; 37-1/2" high; 18" deep.

WEIGHT: 126 lbs.

MODEL Q-40:

IN PRODUCTION: June 1959

SELLING PRICE: \$465.00

DIMENSIONS: 31" wide; 36-5/8" high; 17-1/4" deep.

WEIGHT: 110 lbs.

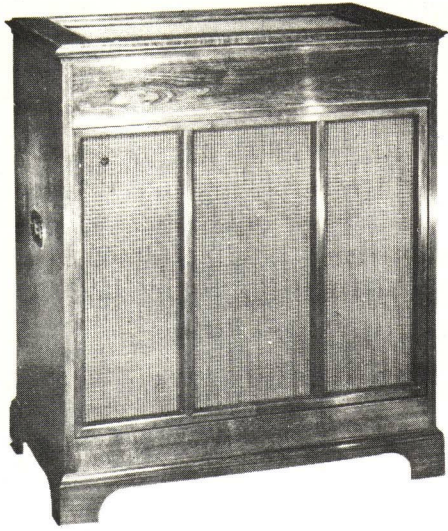
AC INPUT: 175 watts.

OUTPUT: 55 watts E.I.A.

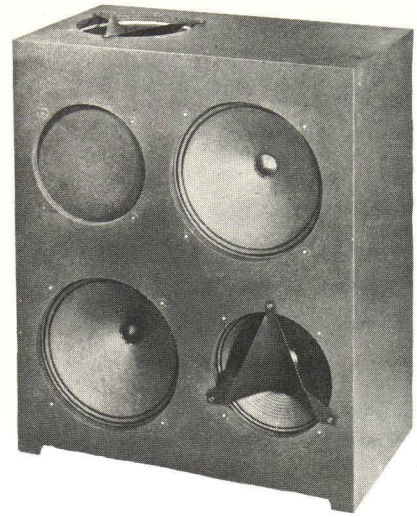
Equipped with a two channel amplifier, two 15" speakers and two 12" speakers serving the bass and treble channels respectively. This tone cabinet in conjunction with a Hammond tone cabinet with reverberation can add the additional power required for larger installation at a minimum cost. Can also be used alone where sufficient natural reverberation is evident.

The Q-40 is electrically similar to the P-40 but with utility type cabinet is only used where appearance is not a consideration such as tone and reverberation chambers.

The treble speakers are normally mounted in the top. In unusual installation where the ceiling is very low, or cabinets are stacked or radiation is otherwise restricted, it is possible to move these speakers to the holes provided in the front. The metal diffusers in front of the speakers must also be moved and the wooden covers must be attached under the top to close the holes.



MODEL PR-40



MODEL QR-40

SPECIFICATIONS

MODEL PR-40:

IN PRODUCTION: February 1959
SELLING PRICE: \$615.00 - Walnut
\$645.00 - Oak
\$645.00 - Cherry
DIMENSIONS: 31-1/2" wide; 37-1/2" high; 18" deep.
WEIGHT: 130 lbs.

MODEL QR-40:

IN PRODUCTION: June 1959.
SELLING PRICE: \$535.00
DIMENSIONS: 31" wide; 36-5/8" high; 17-1/4" deep.
WEIGHT: 121 lbs.
AC INPUT: 220 watts
OUTPUT: 50 watts E.I.A.

Equipped with two 15" speakers for bass tones and two 12" speakers for the treble tones. They provide three dimension amplification which creates a beautiful reverberation effect in stereo. These cabinets feature the new and improved Hammond Reverberation control for both bass and treble tones. Convenient outside controls make it easy to change the degree of reverberation for each.

MODEL PR-40 AND QR-40 SPECIFICATIONS (Continued)

The QR-40 is electrically similar to the PR-40 but with its utility type cabinet is only used where appearance is not a consideration, such as in tone and reverberation chambers.

The treble direct speaker is normally mounted in the top. In an unusual installation where the ceiling is very low, or cabinets are stacked or radiation is otherwise restricted, it is possible to move this speaker to the hole provided in the front. The metal diffuser in front of the speaker must also be moved, and the wooden cover must be attached under the top to close the hole.



SPECIFICATIONS SERIES "10" TONE CABINETS

MODEL STYLE	FINISH	IN PRODUCTION	SELLING PRICE
10-10 Traditional	Trans. Black	Oct. '66	\$745.00
10-11 Traditional	Red Mahogany	Sept. '66	695.00
10-12 Traditional	Walnut	Sept. '66	725.00
10-33 Fr. Provincial	Cherry	Dec. '66	745.00
10-43 Early American	Cherry	Dec. '66	745.00
10-82 It. Provincial	Walnut	Sept. '66	725.00
10-95 Mediterranean	Oak	Nov. '66	795.00

DIMENSIONS: 32-1/4" wide, 42" high, 18" deep.

WEIGHT: 125 lbs.

INPUT: 1.8 amps. maximum.

OUTPUT: 145 watts E.I.A.

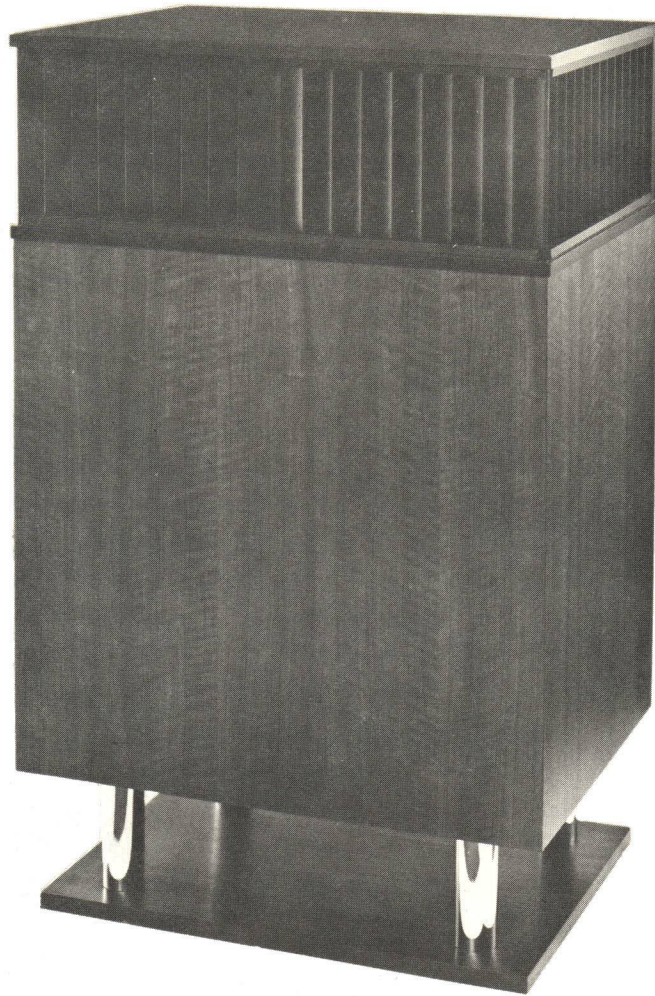
Equipped with one 15" speaker for the bass channel and two 8" speakers for the treble channels. The treble channels are utilized as follows:

When used with the E-100 series, one channel is for the treble direct and one channel is for the treble reverb.

When used with the H-100 series, these treble channels come in the out of phase vibrato and celeste signals and the reverb. signal.

When used with the K-100, or J-100 series, both treble channels contain the same signal.

On the rear of the tone cabinet are two 3-position switches. One switch controls the tone of the treble channels with positions; Brilliant, Normal and Mellow. The other switch controls the volume with positions: Loud, Medium and Soft.



SPECIFICATIONS 12-77 TONE CABINET
(for use with X-66 console)

IN PRODUCTION: May, 1967

SELLING PRICE: \$925.00

DIMENSIONS: 33" wide, 25" deep, 53" high

WEIGHT: 188 lbs.

A.C. INPUT: 260 watts

OUTPUT: 200 watts music power output

The 12-77 tone cabinet is custom designed to compliment the X-66 console. Its five channel amplifier drives a speaker complement consisting of: One 15" bass speaker, four 8" wide dispersion speakers, two 8" treble channel speakers and two horns.



SPECIFICATIONS A-100 SERIES

MODEL STYLE	FINISH	IN PRODUCTION	SELLING PRICE
A-100 Traditional	Lt. Walnut	Sept.'59 to Oct.'65	\$2,595.00
A-100 Traditional	Red Mahogany	Oct. '60 to Oct.'65	2,545.00
A-101 Contemporary	Br. Mahogany	Jan. '61 to Oct.'65	2,695.00
A-101 Contemporary	Gr. Mahogany	Jan. '61 to Oct.'65	2,770.00
A-101 Contemporary	Tr. Black	Jan.'61 to Nov.'65	2,695.00
A-102 Fr.Provincial	Lt. Cherry	Jan. '61 to Oct.'65	2,770.00
A-102 Fr.Provincial	Dk. Cherry	Jan. '61 to Oct.'65	2,770.00
A-105 Tudor	Walnut	June '62 to Oct.'65	2,995.00
A-105 Tudor	Oak	Feb.'63 to Oct.'65	3,025.00
A-122 Contemporary	Patina Walnut	July'64 to Oct.'65	2,695.00
A-143 Early American	Med.Cherry	Aug.'64 to Oct.'65	2,770.00

MANUALS: Swell and Great, 61 playing keys each.

PEDAL

KEYBOARD: 25-note radiating, detachable.

TONAL 9 preset keys and 2 sets of 9 adjustable harmonic drawbars

CONTROLS: for each manual. 2 adjustable drawbars (16' and 8') for pedals.

EXPRESSION: One expression pedal controlling Swell, Great and Pedals.

PERCUSSION: Four tablets for control of Hammond percussion feature.

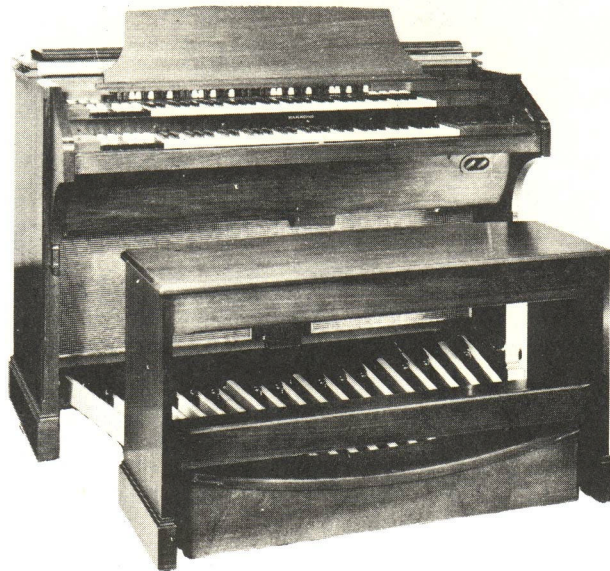
REVERBERATION: One knob control for "off" and all intensities.

DIMENSIONS: With bench and music rack: 47" wide; 45-1/2" high; 43" deep.

AC INPUT: 200 watts.

OUTPUT: 27 watts E.I.A

WEIGHT: Complete 381 lbs.



SPECIFICATIONS D-100 SERIES

<u>MODEL STYLE FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
D-152 Tudor Walnut	July '63 to Sept. '69	\$3,725.00
D-155 Tudor Oak	July '63 to Sept. '69	3,830.00

MANUALS: Swell and Great, 61 playing keys each.

PEDAL 32-note, concave, radiating, detachable, built to A.G.O. specifications.

PEDAL SOLO SYSTEM: Has pedal solo system with separate volume control, providing following solo effects; 32-foot Bourdon, 32-foot Bombarde, 16-foot Solo, 8-foot Solo, 4-foot Solo, 2 and 1-foot Solo. Also tablets for Mute Control and Pedal Solo On

TONAL CONTROLS: 9 preset keys and 2 sets of 9 adjustable harmonic drawbars for each manual; for pedals, two adjustable drawbars (16' and 8').

EXPRESSION: One expression pedal, controlling Swell, Great, and Pedals.

TILT TABLETS: Three providing control of vibrato. Four controlling Hammond percussion feature.

REVERBERATION: Two knobs for "off" and all intensities in bass and treble channels.

DIMENSIONS: Open as shown, 57" wide; 47" high; 48" deep.

AC INPUT: 330 watts.

OUTPUT: 50 watts E.I.A.

WEIGHT: 543 lbs.



SPECIFICATIONS E-100 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
E-111 Traditional	Red Mahogany	June '65	\$2,465.00
E-112 Traditional	Walnut	June '65	2,515.00
E-133 Fr. Provincial	Cherry	June '65	2,615.00
E-143 Early American	Cherry	June '65	2,615.00
E-182 It. Provincial	Sherry Walnut	June '65	2,545.00

MANUALS: Upper and lower, 61 keys each.

PEDAL

KEYBOARD: 25 note radiating, detachable.

TONAL 27 control tablets, 5 percussion voices, harp sustain, brush

CONTROLS: effect and cymbal, three preset and one set of nine adjustable drawbars for each manual. Two drawbars (16' and 8') for pedal keyboard.

EXPRESSION: One pedal for entire organ, plus "volume soft" tab.

VIBRATO: Two degrees on either manual, or both. Also, two degrees of vibrato chorus, and six degrees of vibrato celeste. Effects can be cancelled by foot switch on expression pedal.

REVERBERATION: Two tablets provide three degrees.

PERCUSSION: "Touch Response Percussion" with five prevoice qualities which can be used separately, or drawbars added.

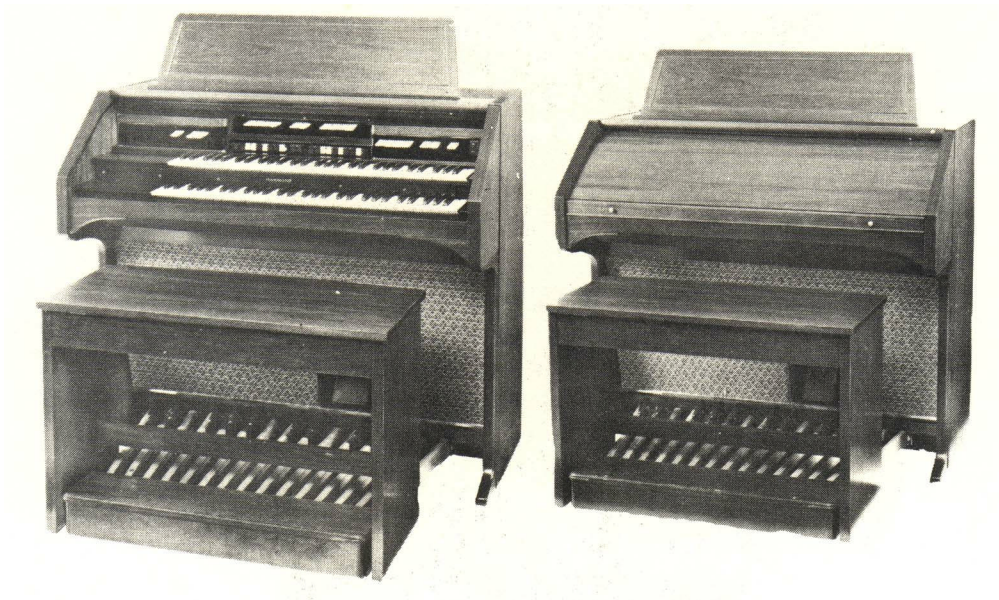
SUSTAIN AND RHYTHM: Polyphonic harp sustain available with or without vibrato. Cymbal on pedals. Brush on lower manuals.

POWER INPUT: 1.8 amps.

OUTPUT: Three speakers, 50 watts, E.I.A. Tone cabinet can be added.

DIMENSIONS: 48" wide, 26" deep, 48" high with music rack.

WEIGHT: 410 lbs. with pedals and bench.



SPECIFICATIONS E-200 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
E-262 Institutional	Walnut	June '65	\$2,595.00
E-265 Institutional	Oak	June '65	2,650.00

Electrically similar to E-100. Percussion stops speak through Great manual. Brush and Cymbal are omitted. Presets for liturgical. Cabinet has roll top with lock and finished rear panel.

DIMENSIONS: 47" wide, 25-1/2" deep, 50-1/2" high, with music panel.

WEIGHT: 435 lbs., with bench and pedals.



SPECIFICATIONS E-300 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
E-311 Traditional	Red Mahogany	June 65 to Sept. '69	\$2,120.00
E-312 Traditional	Walnut	June '65 to Sept. '69	2,245.00
E-333 Fr. Provincial	Cherry	June '65 to Sept. '69	2,345.00
E-343 Early American	Cherry	June '65 to Sept. '69	2,345.00
E-382 It. Provincial	Sherry Walnut	June '65 to Sept. '69	2,275.00

The E-300 series is identical to the E-100 series, except Harp Sustain and Rhythm features are not included.

A "Celeste" tab is provided which is not on the E-100 series.



SPECIFICATION F-100 SERIES

IN PRODUCTION: June 1961 to August 1964.

SELLING PRICE: \$995.00 - Walnut.

DIMENSIONS: With music rack: 37-3/4" wide; 42-3/8" high and 21-1/8" deep.

Without music rack: 35-1/4" high.

MANUAL: 52 note keyboard.

PEDAL

KEYBOARD: 12 note, attached.

TONAL Four independent tone generating divisions; Treble,

DIVISIONS: Accompaniment, Extravoice controlled from keyboard, and Pedal Division.

EXPRESSION: Knee-operated expression control, supplemented by rotary control. Individual rotary balancers for setting volume of tonal divisions.

TONAL Twenty-four stop tablets control a wide variety of

RESOURCES orchestral, "Touch Response Percussion", and traditional organ voices in many pitch ranges.

AC INPUT: 160 watts.

OUTPUT: 15 watts E.I.A.

WEIGHT: 161 lbs.



SPECIFICATIONS GRAND 100 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
G-162 Traditional (A.G.O. Specs.)	Light Walnut*	Feb.'64 to July'67	\$13,750.00**

* Oak and custom finishes available at extra cost

** Extra Power Amplifier and Speaker-Complement No. 1: \$ 540.00 (G-162A)
Complement No. 2: \$3,000.00 (G-162B)

MANUALS: Two five octave, 61 note overhanging keyboards.
 STOP 65 stop tablets which include 50 speaking stops, 12 couplers
 TABLETS: and three tremulants.
 THUMB 18 thumb pistons.17 adjustable thumb pistons; five affecting
 PISTONS: the Great and Pedal divisions; five affecting the Swell,
 Antiphonal and Pedal divisions; six general pistons affecting
 all divisions; and general cancel; and in addition to these a
 Sforzando with indicator light on top board.
 TOE Eight toe pistons; six duplicating the six general thumb
 PISTONS: pistons, a Sforzando duplicating the thumb piston, and a
 Great to Pedal reversible.
 BALANCED One each for Great and Pedal, Swell and Antiphonal, and
 EXPRESSION Crescendo (with four indicator lights on the stop board).
 PEDALS:
 PEDAL BOARD: 32 note, concave and radiating pedal board.
 ILLUMINATION: Music rack and pedal board illuminated.

SPECIFICATIONS GRAND 100 SERIES (Continued)

AMPLIFICATION Standard equipment -four tone cabinets and power amplifier
EQUIPMENT: rack - Music Power Output: 325 watts E.I.A. Complement
No. 1: 450 watts E.I.A.; Complement No. 2: 840 watts
E.I.A.

A complete stop list is available from the Hammond Organ
Company.

DIMENSIONS: Depth with pedals and bench 51". Height with music rack
up, 61". Width, 62".

Auxiliary rack depth; 18" plus 24" clearance for doors.
Height, 70" plus 12" clearance for ventilation. Width,
45", plus 6" around sides for ventilation.

Bass or treble speaker cabinet, 24" deep, 30" wide,
36" high.

WEIGHTS: Console plus pedal clavier approximately 750 lbs.
Auxiliary rack approximately 550 lbs. Each speaker cabinet
approximately 60 lbs.



SPECIFICATIONS H-100 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
H-110 Traditional	Trans. Black	Oct. '65	\$3,645.00
H-111 Traditional	Red Mahogany	Oct '65	3,495.00
H-112 Traditional	Walnut	Oct. '65	3,545.00
H-133 Fr. Provincial	Cherry	Oct. '65	3,720.00
H-143 Early American	Cherry	Oct. '65	3,720.00
H-182 It. Provincial	Walnut	Oct. '65	3,595.00
H-195 Mediterranean	Oak	Oct. '65	3,795.00

MANUALS: Upper and lower, 61 keys each.

PEDAL KEYBOARD: 25 note, radiating, detachable.

TONAL TROLS: 25 control tablets, including: six percussion voices, CON-harp sustain, brush effect, and cymbal; nine pre-set keys and two sets of eleven adjustable harmonic drawbars for upper manual; nine preset keys and two sets of ten adjustable harmonic drawbars for lower manual; four drawbars (16' and 8') for pedal keyboard.

EXPRESSION: One pedal controlling entire organ plus "volume soft" tab.

VIBRATO: Three degrees of selective vibrato on either manual or both; three degrees of vibrato chorus; three degrees of "dual vibrato". Vibrato Cancel Switch on expression pedal. Celeste effect can be used alone or in numerous combinations with vibrato and chorus.

REVERBERATION: Two tablets provide three degrees of reverberation.

PEDAL LEGATO: Three degrees by two "string bass" tablets.

SPECIFICATIONS H-100 SERIES (Continued)

PERCUSSION: Tablet controlled "touch response" or "legato" percussion. Six prevoiced tone qualities can be used separately, in combination, or with drawbar combinations. Vibrato or adjustable-rate reiteration can be applied to any of the six voices. The "second voice" tablet provides these same voices without percussion.

SUSTAIN AND RHYTHM: Harp sustain can be used with or without vibrato. Cymbals on pedals, and brush effect on either manual, can be used separately or with any of the voices.

POWER INPUT: 3.1 amps.

OUTPUT: 60 watts, E.I.A. three speakers. Auxiliary tone cabinets are available.

DIMENSIONS: 50" wide, 26-1/2" deep, 50" high, with music rack.

WEIGHT: 445 lbs., with pedals and bench



SPECIFICATIONS H-262

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
H-262 Institutional	Walnut	1969	\$3,995.00

Same as H-100 with following additions and changes.

Percussion voices: Chimes, Celesta, Nazard, Bells, Harp.
Reiteration deleted.

Pedal sustain instead of string bass.

Decorative rear panel.

Retractable roll locking top.

Built-in music rack light.

Rhythm voices deleted.

Preset voices changed to liturgical voices.

DIMENSIONS: 49" width, 46" depth, 50-1/2" height.

WEIGHT: 460 lbs.



SPECIFICATIONS J-100 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
J-110 Traditional	Ebony	Sept. '67 to Oct. '68	\$595.00
J-111 Traditional	Red Mahogany	January 1967	\$745.00
J-112 Traditional	Walnut	January 1967	\$775.00
J-113 Traditional	Maple	Sept. '67 to Oct. '68	\$595.00
J-114 Traditional	Brn. Mahogany	Sept. '68 to Oct. '68	\$599.00 (Less Bench)
		Bench for above	\$ 31.00
J-122 Contemporary	Walnut	January 1967	\$775.00
J-143 Early American	Cherry	January 1967	\$795.00

MANUALS: Upper and lower, 44 overhanging keys each.

PEDALS: 13 note.

TONE GENERATION: All transistor.

EXPRESSION: One pedal controlling all divisions, fully compensated.

TONAL CONTROLS: 16 voice tabs. Upper manual has five 8' voices and three 16' voices. Lower manual has five 8' voices, and accent tab. Pedal has three 16' and one 8' voice.

REVERBERATION: Knob for "off" and continuously variable.

SPECIFICATIONS J-100 SERIES (Continued)

VOLUME KNOB: "On" and "Off" switch also provides preset maximum volume.

PERCUSSION,
REITERATION,
KNOB: Provide "Touch Response Percussion" in two degrees; "Off";
or three reiteration rates to all 8'voices in upper
manual.

VIBRATO: Two widths plus "Off", both manuals.

POWER INPUT: .56 Amp.

OUTPUT: One 12" speaker, one 6" speaker, 34 watts E.I.A. Tone
Cabinet connection. Earphone jack.

DIMENSIONS: 45" wide, 22-1/2" deep, 43" high, with music rack.

WEIGHT: 135 lbs.



SPECIFICATIONS J-200 SERIES

<u>MODEL</u>	<u>STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
J-211	Traditional	Red Mahogany	July, 1967 to June, 1968	\$945.00
J-212	Traditional	Walnut	July, 1967 to June, 1968	\$975.00
J-222	Contemporary	Walnut	July, 1967 to June, 1968	\$975.00
J-243	Early American	Cherry	July, 1967 to June, 1968	\$995.00

Same as J-100 with following additions:

1. Color Coded Tabs.
2. Flute Tremolo.
3. Delay Vibrato.
4. 2 Speed Leslie.
5. Weight 195 lbs.



SPECIFICATIONS J-300 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
J-311 Traditional	Red Mahogany	July, 1968	\$995.00
J-312 Traditional	Walnut	July, 1968	\$995.00
J-322 Contemporary	Walnut	July, 1968	\$995.00
J-343 Early American	Cherry	July, 1968	\$1,025.00

Same as J-200 with following additions:

1. Percussion Converted from Touch Response to Legato.
2. Cymbal on Pedal, Brush on Lower Keyboard.



SPECIFICATIONS K-100 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
K-111 Traditional	Red Mahogany	June '65 to Dec. '66	\$895 00
K-112 Traditional	Walnut	June '65 to Dec. '66	\$925.00
K-122 Contemporary	Walnut	June '65 to Dec. '66	\$925.00
K-133 Fr. Provincial	Cherry	June '65 to Dec. '66	\$970.00
K-143 Early American	Cherry	June '65 to Dec. '66	\$970.00

MANUALS: Upper and lower, 44 keys each.

PEDAL

KEYBOARD: 13 note, attached.

TONAL CONTROLS: 28 control tabs, including 13 preset tablets for upper manual, 6 preset and 1 accent tablet for lower manual; 3 preset tablets for pedal keyboard.

EXPRESSION: One expression pedal, controlling upper and lower manuals and pedals.

VIBRATO: Controlled by tabs.

REVERBERATION: Controlled by tabs.

DIMENSIONS: 45-1/2" wide, 25" deep and 44-1/2" high with music rack.

AC INPUT: 110 watts.

OUTPUT: 25 watts E.I.A.

WEIGHT: 200 lbs.



SPECIFICATIONS L-100 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
L-101 Traditional	Red Mahogany	Sept. '61 to July '64	\$995.00
L-102 Contemporary	Walnut	Sept. '61 to Oct. '64	\$1,025.00
L-103 Fr. Provincial	Cherry	Nov. '61 to June '64	\$ 995.00
L-111 Traditional	Red Mahogany	July '64	\$1,175.00
L-112 Traditional	Lt. Walnut	Oct. '64	\$1,175.00
L-122 Contemporary	Lt. Walnut	Aug. '64	\$1,175.00
L-133 Fr. Provincial	Fruit. Cherry	July '64	\$1,220.00
L-143 Early American	Med. Cherry	Aug. '64	\$1,220.00

MANUALS: Upper and lower, 44 keys each.

PEDAL

KEYBOARD: 13 note, attached.

TONAL CONTROLS: 16 control tabs including 4 preset tablets and one set of harmonic drawbars for each manual; one drawbar for pedal keyboard. Later models have 17 control tabs.

EXPRESSION: One expression pedal, controlling upper and lower manuals and pedals; also equipped with normal and soft volume control.

VIBRATO: Three degrees of vibrato.

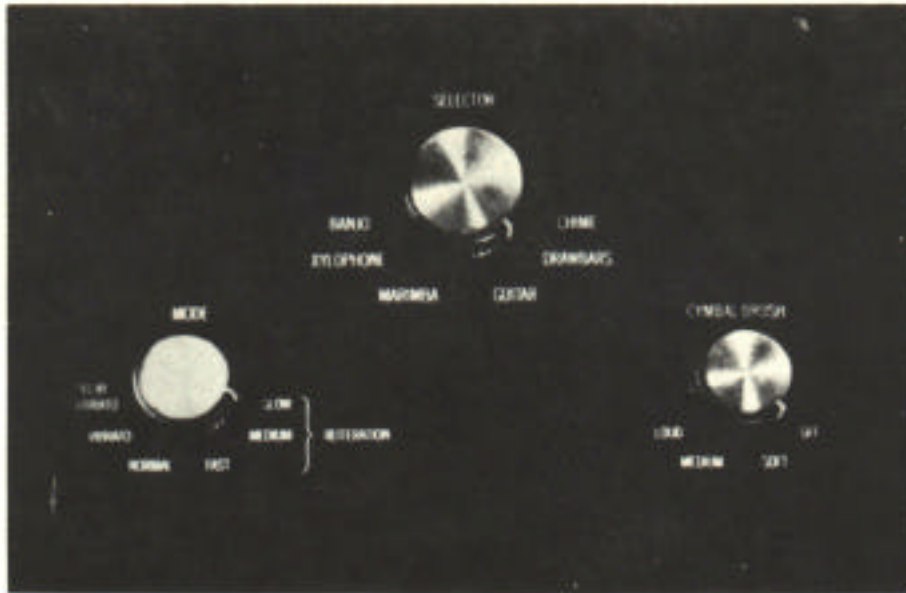
REVERBERATION: Controlled by tabs.

DIMENSIONS: 43-1/2" wide; 23" deep, 44-1/3" high.

AC INPUT: 140 watts.

OUTPUT: 15 watts E.I.A.

WEIGHT: 215 lbs.



SPECIFICATIONS L-100-A

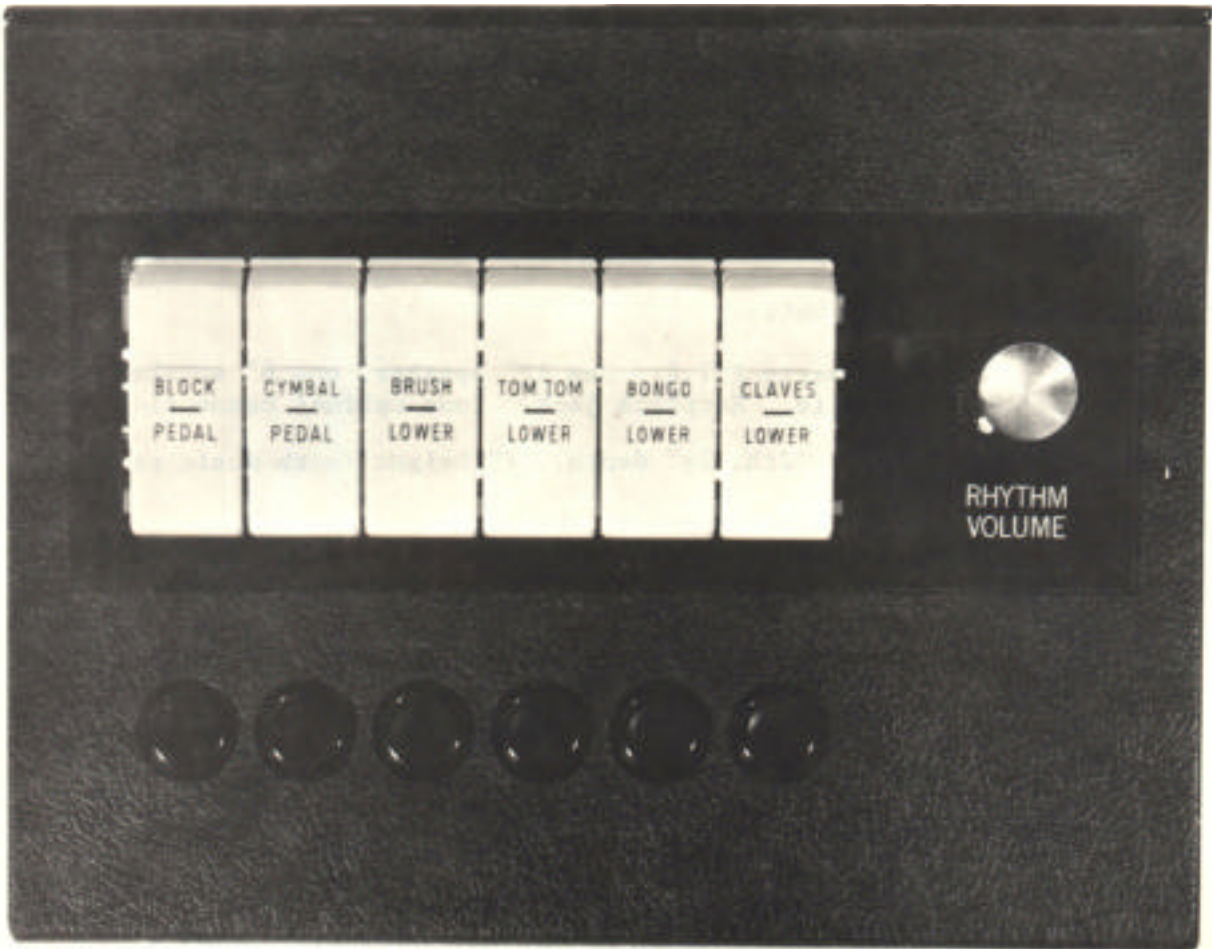
Same as L-100 except percussion and special effect unit replaced left lower end block.

PERCUSSION VOICES: Chime, guitar, marimba, xylophone, banjo on upper manual only. Reiteration fast, medium and slow.

RHYTHM & SPECIAL EFFECTS: Cymbal on pedal, brush on lower manual. Delay vibrato

PRICE: Add \$175.00 to standard L-100 prices.

IN PRODUCTION: June, 1967. Discontinued March, 1969.

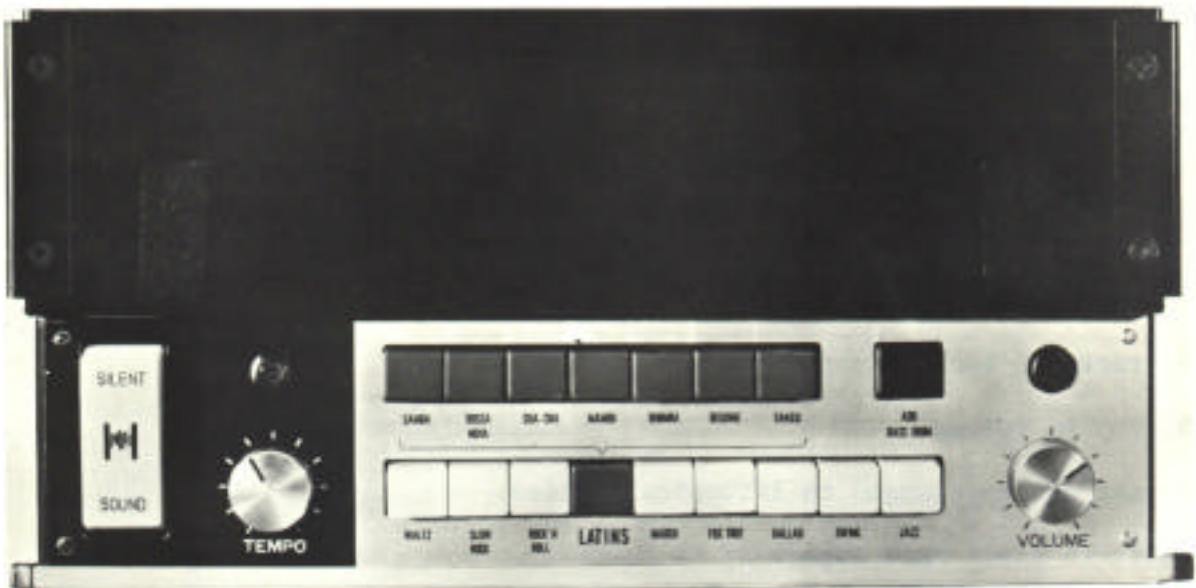


SPECIFICATIONS L-100-1

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>	
L-111-1	Traditional	Mahogany	April, 1969	\$1,305.00
L-112-1	Traditional	Walnut	April, 1969	\$1,305.00
L-122-1	Contemporary	Walnut	April, 1969	\$1,305.00
L-133-1	Fr. Provincial	Cherry	April, 1969	\$1,350.00
L-143-1	Early American	Cherry	April, 1969	\$1,350.00

Same as basic L-100 except 6-voice rhythm panel replaced lower right end block.

RHYTHM VOICES: Cymbal and block on pedal. Brush, tom-tom, bongo, craves on lower manual. Separate volume control to balance rhythm voices with organ voices. 6 momentary buttons also actuate individual rhythm voices.



SPECIFICATIONS L-100-2

Same as L-100-1 with addition of Rhythm II drawer installed at factory.

IN PRODUCTION: April, 1969 (only 500 L-112-2s were manufactured).

PRICE: Price was \$200.00 over L-100-1 price. Dealer installed Rhythm II units on L-100-1 or L-100s adds \$250.00 to the price.

Rhythm II unit provides 15 programmed rhythm patterns. Controls include: silent sound switch, on-off switch, add bass drum switch, rotary tempo control, rotary volume control. Blinking light indicates first beat of every measure.

RHYTHM PATTERNS: Waltz, slow rock, rock 'n roll, march, fox trot, ballad, swing, jazz, samba, bossa nova, cha-cha, mambo, rhumba, beguine, tango.



SPECIFICATION SPINET MODEL M, M-2, AND M-3

MODEL M:

IN PRODUCTION: November 1948 to November 1951 .

SELLING PRICE: \$1,285.00 - Walnut.

MODEL M-2: Same as M but with one additional tilting tablet to provide Selective Vibrato.

IN PRODUCTION: November 1951 to January 1955.

SELLING PRICE: \$1,350.00 - Walnut.

MODEL M-3: Same as M-2 but with four additional tilting tablets for Percussion Control.

IN PRODUCTION: January 1955 to January 1964.

SELLING PRICE: \$1,350.00 - Walnut. \$1,440.00 - Oak, Ebony, Blond, Modern Walnut and Provincial.

MANUALS: Swell and Great. 44 playing keys each.

PEDAL

KEYBOARD: 12 note, attached.

TONAL: One set of 9 adjustable harmonic drawbars for upper manual.

CONTROLS: One set of 8 adjustable harmonic drawbars for lower manual.

One adjustable drawbar for pedal. Tilting tablets controlling volume, pedal attack and decay and vibrato selection.

EXPRESSION: One; controlling all divisions with side control for pedal leg ato.

DIMENSIONS: 45-5/8" wide; 25-3/8" deep; 42" high.

AC INPUT: 103 watts.

OUTPUT: 11 watts E.I.A.

WEIGHT: 249 lbs.



SPECIFICATIONS M-100 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
M-101*	Traditional	Red Mahogany	Aug.'61 to Jan.'68 \$1,495.00
M-102*	Contemporary	Walnut	May'62 to Jan.'68 \$1,595.00
M-103*	Fr. Provincial	Cherry	Nov.'61 to Jan.'68 \$1,595.00
M-111*	Traditional	Walnut	Nov.'61 to Jan.'68 \$1,545.00
M-143*	Early American	Cherry	July'64 to Jan.'68 \$1,595.00
M-162	Institutional	Walnut	Feb.'65 to Jan.'68 \$1,660.00
M-165	Institutional	Oak	Feb.'65 to Jan.'68 \$1,710.00

MANUALS: Upper and lower, 44 keys each.

PEDAL KEYBOARD: 13 note, attached.

TONAL CONTROLS: 24 control tabs including 6 preset tablets. One set of harmonic drawbars for each manual; one drawbar for pedal keyboard.

EXPRESSION: One expression pedal, controlling upper and lower manuals and pedals; also equipped with normal and soft volume control, and automatic pedal legato.

VIBRATO: Controlled by tabs.

REVERBERATION: Controlled by tabs.

SPECIFICATIONS M-100 SERIES (Continued)

DIMENSIONS: 44-3/4" wide; 25-1/2" deep; 44-1/2" high.

AC INPUT: 155 watts.

OUTPUT: 22 watts E.I.A.

WEIGHT: 268 lbs.

* These models also available with percussion/rhythm feature mounted on lower left end block. Voices include chime, guitar, marimba, xylophone, banjo on upper manual. Reiteration fast, medium and slow affects percussion voices. Rotary control introduces cymbal on the pedals and brush on the lower manual at soft, medium or loud volume. Delay vibrato is also a feature.

Organs equipped with this feature are identified by suffix "A" after model number. Serial plate will show "A" designation if feature is factory installed.

In production January 1967 to 1968.

Price: Add \$225.00 to M-100 price.



SPECIFICATIONS N-100 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
N-122 Contemporary	Walnut	September, 1969	\$1,495.00

MANUALS: Upper and lower 44 overhanging keys each.

PEDALS: 13 Note - Three voices plus accent; two 16' and one 8'.
Pedal Legato and String bass.

STONE GENERATOR: All transistor.

EXPRESSION: One pedal controlling all divisions, plus volume soft tab.

TONAL CONTROLS: Three 16' voices, five 8' voices, two 4' voices on upper manual. Five 8' voices plus accent on lower manual.

SPECIAL EFFECTS Reiteration: flutes, main or both. Sustain short and long
UPPER MANUAL: on all upper voices. Dynamute fast or slow.

REVERBERATION: Two tabs controlling three degrees.

VIBRATO: Three tabs: on/off, fast, slow: small, normal, plus delay vibrato.

SPECIFICATIONS N-100 SERIES (CONTINUED)

LESLIE: Built-in two speed Leslie.

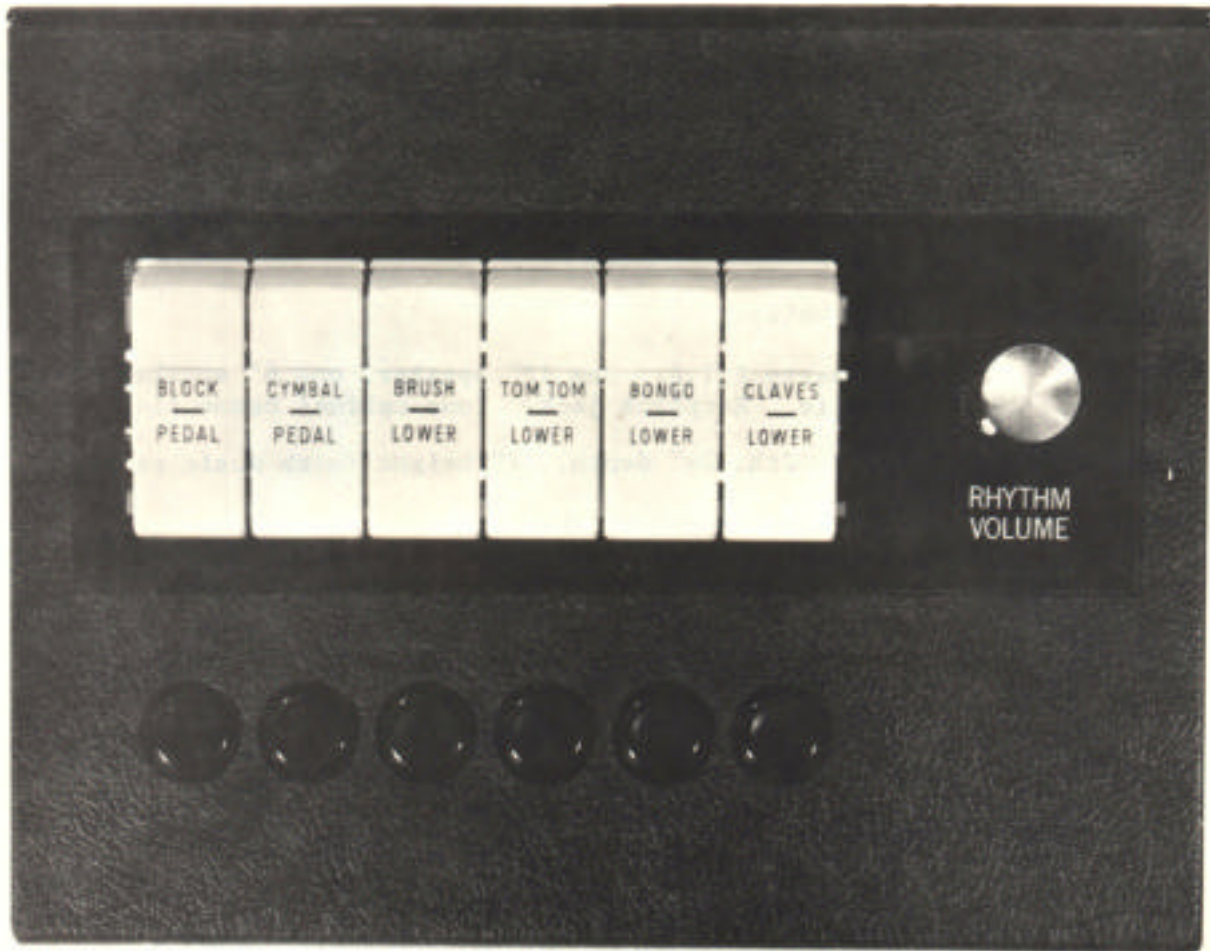
RHYTHM: Cymbal on pedal, brush on lower manual, continuously variable volume control.

POWER INPUT: 120 watts.

OUTPUT: 34 watts E.I.A. One 12" speaker, one 6" speaker plus Leslie. Earphone jack. Tone cabinet connection.

DIMENSIONS: 44" width, 24" depth, 47" height (with music rack).

WEIGHT: 168 lbs. Bench 15 lbs.



SPECIFICATIONS N-200

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
N-222 Contemporary	Walnut	October, 1969	\$1,695.00
N-212 Traditional	Walnut	October, 1969	\$1,695.00

Same specifications as N-100 plus:

1. Two channel amplifier - 34 watts per channel. Flutes 16', 8', 4' or all other upper manual voices may be selectively channelled to the Leslie or main speakers. Likewise, reverb may be channelled through the Leslie or main speakers.
2. Auto Glide. Provides automatic glide or portamento when two or more notes are played at once on the upper manual.
3. Six-voice rhythm end block at right of lower manual. Two rhythm voices on the pedals, four rhythm voices on the lower manual. Momentary buttons for rhythm accents.

POWER INPUT: 155 watts.

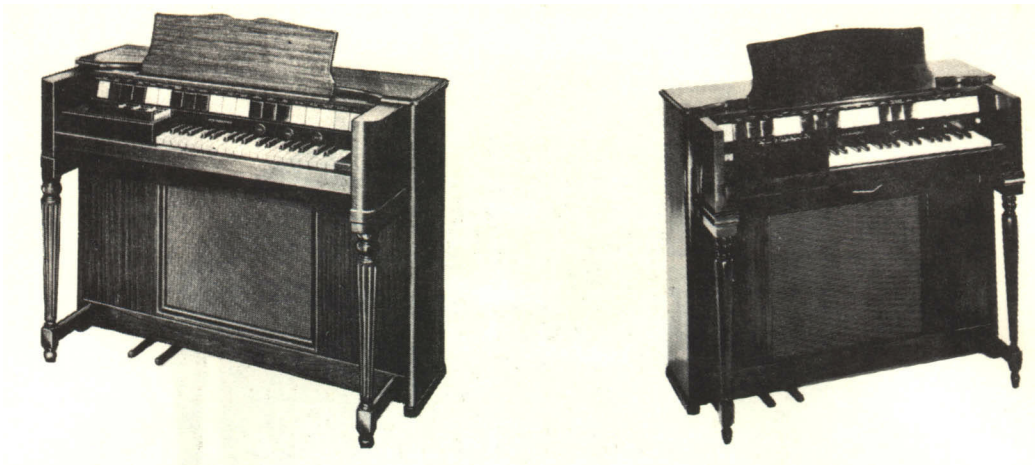


SPECIFICATIONS N-300 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
N-312 Traditional	Walnut	October, 1969	\$1,895.00
N-322 Contemporary	Walnut	October, 1969	\$1,895.00

Same specifications as N-200 plus:

Built-in 15 pattern programmed automatic rhythm unit. Controls are installed in a straight line just above the control tablets and below the music desk.



SPECIFICATION CHORD MODELS S, S-1, S-4, AND S-6

MODEL S:

IN PRODUCTION: March 1950 to April 1953.

SELLING PRICE: \$975.00 - Walnut.

MODEL S-1: Same as Model S but uses miniature tubes.

IN PRODUCTION: April 1953 to March 1954.

SELLING PRICE: \$975.00 - Walnut.

MODEL S-4: Electrically similar to S-1 but with two speakers.

IN PRODUCTION: February 1954 to December 1955.

SELLING PRICE: \$975.00 - Walnut. \$1,025.00 - Ebony, Limba.

MODEL S-6: Same as S-4 but with Percussion.

IN PRODUCTION: January 1956 to October 1963.

SELLING PRICE: \$975.00 - Walnut. \$1,025.00 - Ebony, Limba and Provincial.

DIMENSIONS: Approximate - 40-3/8" wide; 21-1/32" deep; 41" high.

MANUALS: 37 note keyboard, 96 bass buttons.

PEDALS: 2, providing root and fifth notes, attached.

TONAL

CONTROLS: 20 tilting tablets providing various voices and tone coloring.

EXPRESSION: Knee operated.

AC INPUT: 155 watts.

OUTPUT: 11 watt E.I.A.

WEIGHT: 140 lbs.



SPECIFICATIONS S-100 SERIES

<u>MODEL</u>	<u>STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
S-101	Traditional	Lt. Mahogany	Apr.'62 to Aug.'64	\$1,075.00
S-112	Traditional	Walnut	Aug.'64 to Dec.'66	1,075.00
S-133	Fr.Provincial	Cherry	Dec.'63 to Dec.'66	1,125.00

MANUALS: One; three-octave (37 note) standard keyboard that plays single notes or chords.

CHORD SECTION: Individual buttons control 96 different standard organ chords.

PEDALS: Two pedals - one sounding the "root" note for any chord played, and the other the "fifth".

EXPRESSION: One expression pedal controlling all divisions of the organ. Also equipped with normal and soft volume control. Three rotary controls balance the relative loudness of the solo, chord, and pedal sections.

TONAL CONTROLS: Twenty tilting tablets control a wide variety of tone colors and effects including "Touch Response Percussion".

REVERBERATION: Knob controlled for "off" and various intensities.

DIMENSIONS: 40-1/2" wide; 22" deep; 42" high.

AC INPUT: 195 watts.

OUTPUT: 15 watts E.I.A.

WEIGHT: 164 lbs.



SPECIFICATIONS T-100 SERIES

<u>MODEL</u>	<u>STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
T-111	Traditional	Mahogany	Mar.1968 - Oct.1969	\$1,660.00
T-112	Traditional	Walnut	Mar.1968 o Oct.1969	\$1,660.00

MANUALS: Upper and lower, 44 keys each.
 PEDALS: 13 - Pedal legato, pedal mute and string bass.

TONAL CONTROLS: 28 control tablets, 6 percussion voices, brush & cymbal, 3 presets for upper manual, 1 preset for lower manual, 9 drawbars for upper, 7 drawbars for lower, one drawbar for pedal available at 16' or 8' pitch. Volume soft and brilliance tabs.

EXPRESSION: One pedal for entire organ plus soft tab.
 VIBRATO: 5 control tabs: vibrato on, vibrato small, vibrato chorus, vibrato Celeste I and vibrato Celeste II.
 REVERBERATION: Two tabs provide three degrees.
 PERCUSSION: Legato mode - 6 percussion voices - alternating reiteration on xylophone and marimba (twin mallet effect).

POWER INPUT: 145 watts.

OUTPUT: 34 watts E.I.A. Earphone Jack.

DIMENSIONS: 45" wide, 25" deep, 44-1/2" high with music rack.

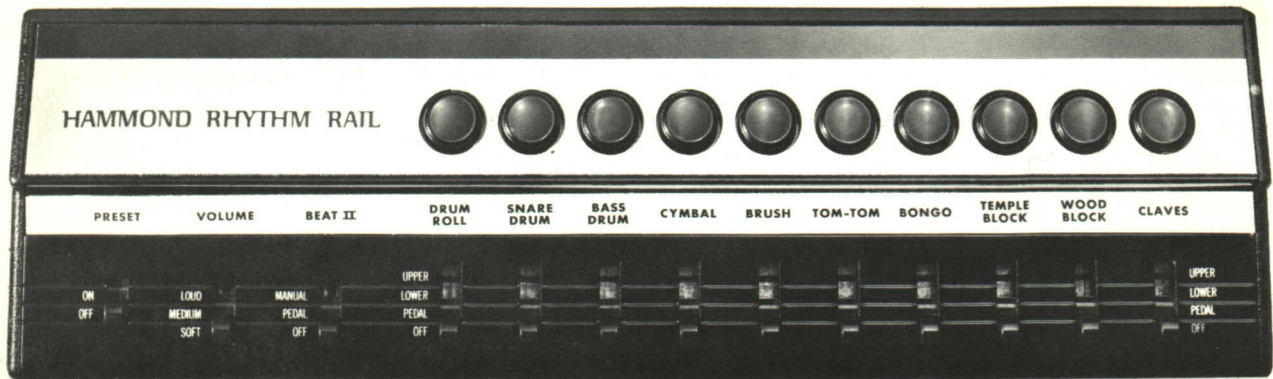
WEIGHT: 220 lbs. with bench.

SPECIFICATIONS T-200, T-300

T-200 Same as T-100 except for addition of two-speed Leslie speaker.

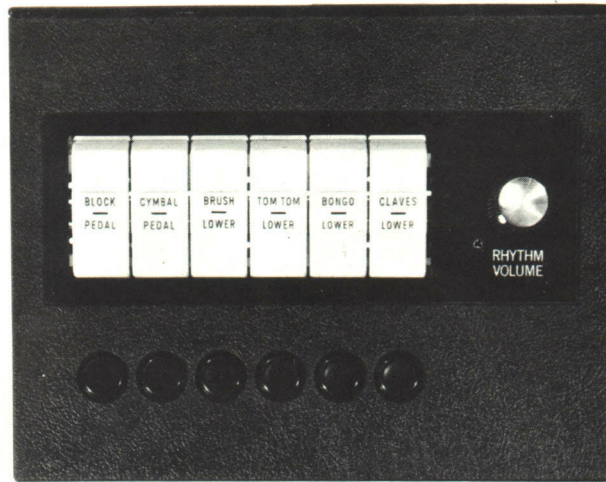
<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
T-211 Traditional	Mahogany	January, 1968	\$1,775.00
T-212 Traditional	Walnut	January, 1968	\$1,840.00
T-222 Contemporary	Walnut	January, 1968	\$1,840.00
T-233 Fr. Provincial	Cherry	January, 1968	\$1,875.00
T-243 Early American	Cherry	January, 1968	\$1,875.00
T-295 Mediterranean	Oak	January, 1968	\$1,875.00

WEIGHT: 235 lbs. with bench.



T-300 Same as T-200 except rhythm rail of 10 voices added.
 In production April, 1968. Discontinued July, 1969. Add
 \$220.00 to T-200 prices for T-300 prices.

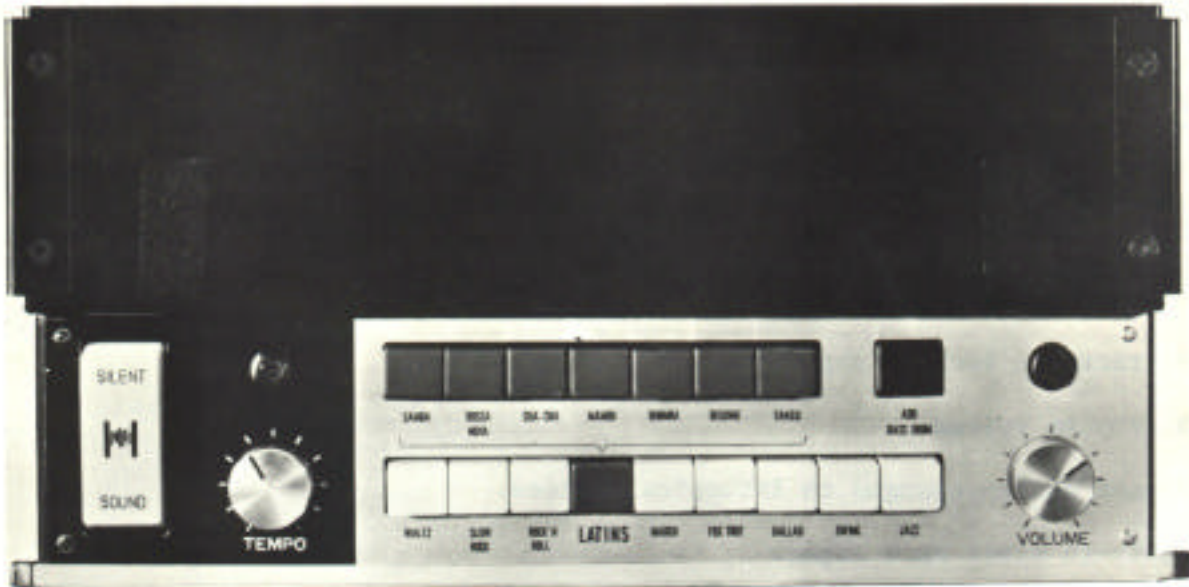
WEIGHT: 240 lbs. with bench.



SPECIFICATIONS T-200-1, T-200-2

T-200-1 Same as T-200 except 6 voice rhythm end block replaces cymbal and brush tabs. Rhythm voices for pedal, 4 rhythm voices for lower manual. Momentary buttons for rhythm accents. In production April, 1969. Add \$75.00 to T-200 prices for T-200-1 prices.

POWER INPUT: 155 watts.



T-200-2 Same as T-200-1 except programmed rhythm II in drawer added. 15 programmed rhythm patterns. Add \$275.00 to T-200-1 prices for T-200-2 prices.

POWER INPUT: 155 watts.



SPECIFICATIONS T-262

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
T-262 Institutional	Walnut		\$1,895.00

Same as T-200 except percussion stops altered to read - Chimes, Harp, Celesta and Bells - no reiteration.

Leslie speaker sounds along with stationary speakers to produce realistic chorus effect.

Retractable locking top.

No Rhythm voices.

Preset voices changed to liturgical voices.

Built-in music rack light.

DIMENSIONS: 44-1/2" wide, 25" deep, 45" high.

WEIGHT: 295 lbs.



SPECIFICATIONS V SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
V-170 Contemporary	Vinyl Brown & Black	April, 1969	\$655.00
V-122 Contemporary	Walnut	April, 1969	\$640.00

MANUALS: Upper and lower, 44 notes each.

PEDALS: 13 note attached.

TONAL CONTROLS: 8 tilting tabs which provide 3 upper manual voices: string, flute, reed. 2 lower voices: tibia, cello. Pedal accent. Vibrato: full and light.

EXPRESSION: One expression pedal, controlling upper and lower manuals and pedals.

VIBRATO: Two degrees: full and light.

REVERBERATION: V-222 only. Controlled by continuously variable rotary control.

DIMENSIONS: 42" wide, 35" high (42" with music rack), 22" deep.

WEIGHT: 115 lbs. with bench.

A.C. INPUT: 47 watts.

OUTPUT: 25 watts E.I.A.

(Both models include headphone jack and phono input.)



SPECIFICATIONS X-66

<u>MODEL</u>	<u>STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
X-66	Custom	Ebony, Walnut & Chrome	May, 1967	\$9,795.00

MANUALS: Two 61-note manuals - overhanging keys.

PEDALS: 25-note radiating pedalboard, detachable pedals covered with extruded aluminum.

TONAL CONTROLS: 39 control tabs, including eight percussion voices; 5 orchestral bright wave voices at 16' or 8', three accompaniment bright wave voices at 8'. Nine preset keys and two sets of eleven adjustable harmonic draw bars for the orchestral manual.

Nine presets and two sets of ten adjustable harmonic drawbars for the accompaniment manual.
Five drawbars for pedal voices: two 16' and 8' composite pitches, two 16' and 8' pure tones and an 8' reed.

EXPRESSION: Single pedal controlling entire organ plus soft, medium and loud volume control.

VIBRATO: Separate selective tremulant for bright wave voices on both manuals. Separate tab channels vibrato to pedal division. Three degrees of vibrato plus celeste for drawbar tones. A "vibrato bass" tab effects only those notes below 400 cycles per second.

SPECIFICATIONS X-66 (CONTINUED)

REVERBERATION: Two tablets provide three degrees.

PEDAL LEGATO: Three degrees controlled by two "string bass" tabs.

PERCUSSION: 8 tablet controlled independently keyed percussion voices including: chime, harp, celesta, marimba, piano, glockenspiel, xylophone, banjo. Additional volume for percussion voices available by using "FF perc." tab. All percussion voices may be reiterated.

ARPEGGIATOR: 61-note arpeggiator located between manuals arpeggiates any percussion voice, Arpeggio based on lower manual notes held.

TRAPS: Special effects panel houses control levers to preregister brush, maracas, block or cymbal on the pedals or manuals. Three tabs above the upper manual (pedal, orch., accomp.) render the preregistered trap sounds operative on 2 selective basis.

SPECIAL FEATURES: The special effects panel also houses the on/off pilot light switch, microphone input and volume control, and a three position over-all volume control. The pedal light switch is also located on this panel.

POWER INPUT: 180 watts.

OUTPUT: 200 watts. See 12-77 tone cabinet specifications.

DIMENSIONS: 55" wide, 51" deep, 42" high with music rack down.

WEIGHT: 574 lbs. with pedals and bench.



SPECIFICATIONS X-77
(Requires X-77L Tone Cabinet)

<u>MODEL</u>	<u>STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
X-77	Custom	Walnut & Ebony	June, 1968	\$4,605.00

MANUALS: Upper & lower - 61 keys each.

PEDALS: 25-note radiating, detachable.

TONAL CONTROLS: 25 control tablets including; 7 percussion voices, reiteration, harp sustain, cymbal on pedal, brush on upper and lower manuals. 9 pre-set keys and two sets of 11 adjustable harmonic drawbars for upper manual, 9 pre-set keys and 2 sets of 10 adjustable harmonic drawbars for the lower manual. Four drawbars (two 16' and two 8') for the pedal keyboard.

EXPRESSION: Single pedal controlling entire organ plus "Volume Soft" tab.

VIBRATO: None in console. All animation sources located in X-77L tone cabinet. See tone cabinet specifications.

REVERBERATION: Two tablets provide three degrees.

PEDAL LEGATO: Three degrees controlled by two "String Bass" tablets.

PERCUSSION: Tablet controlled "Touch Response" or "Legato" percussion. Seven prevoiced tone qualities can be used separately, in combination, or with drawbar registrations set on upper "B" adjust pre-set key. Leslie tremolo or adjustable rate reiteration can be applied to any of the seven voices. The "Second Voice" tab converts the seven percussion voices to sustained tone voices also with or without tremolo.

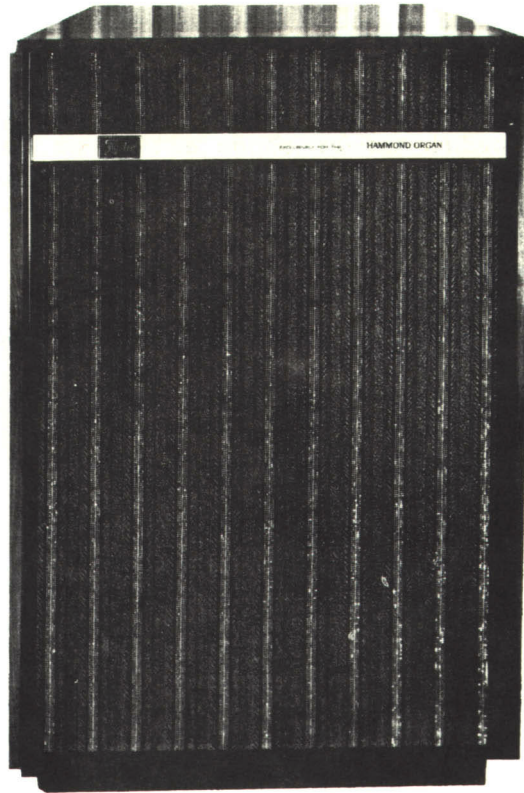
SUSTAIN AND RHYTHM: Harp sustain can be used with or without tremolo. Cymbal on the pedal and brush on either or both manuals. 49 note arpeggiator in front rail. Keys harp arpeggios based on lower manual notes held.

POWER INPUT: 95 watts.

OUTPUT: See X-77L tone cabinet specifications.

DIMENSIONS: 51" wide, 50" high (with music rack), 28-1/2" deep.

WEIGHT: 428 lbs. with bench and pedals.



SPECIFICATIONS X-77L TONE CABINET

(Manufactured by Electro-Music, a Division of
C.B.S. Musical Instruments)

IN PRODUCTION:	June, 1968
SELLING PRICE:	\$895.00
DIMENSIONS:	33-1/4" wide, 20-1/2" deep, 50-1/4" high
WEIGHT:	175 lbs.
A.C. INPUT:	355 Watts
OUTPUT:	200 watts music power output

The X-77L is a 200 watt speaker system. Within the X-77L tone cabinet are four independent amplifier channels (pedal, vibrato, non-vibrato, and percussion) which can be worked in any combinations, and six different loudspeakers each with its own special or dual function. Vibrato, chorus and celesta functions are controlled from tabs located on the X-77 console. Tabs are: chorus, celeste, on upper, on lower, on pedal, tremolo on percussion, on reverb.

NOTE

A service manual for this model
is available from the manufacturer.



SPECIFICATIONS 2000 SERIES

<u>MODEL</u>	<u>STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>	<u>SELLING PRICE</u>
2022	Contemporary	Walnut	June '65 to June '69	\$595.00
2044	Amer.Prov.	Cherry	June '65 to June '69	\$630.00

MANUALS: One; 36 note standard keyboard that plays single notes or chords.

CHORD SECTION: Individual buttons controlling 48 chords to play major, minor, seventh and diminished chords in all keys.

PEDALS: Two pedals - one sounding the "root" note for any chord played, and the other the "fifth".

EXPRESSION: One expression pedal controlling all divisions of the organ. Also equipped with normal and soft volume control. Two rotary controls balance the relative loudness of the solo, chord and pedal sections.

TONAL CONTROLS: 12 tilting tablets control a wide variety of tone colors and effects including chord sustain and chord mute.

VIBRATO: Controlled by tablets.

REVERBERATION: Knob controlled for "off" and various intensities.

DIMENSIONS: 39-1/2" wide, 21" deep, 41" high with music rack.

AC INPUT: 110 watts.

OUTPUT: 15 watts E.I.A.

WEIGHT: 155 lbs.



SPECIFICATIONS 3000 SERIES

<u>MODEL STYLE</u>	<u>FINISH</u>	<u>IN PRODUCTION</u>		<u>SELLING PRICE</u>
3022	Contemporary	Walnut	June '65 to Sept. '66	\$695.00
3044	Amer. Prov.	Cherry	June '65 to Sept. '66	\$630.00

MANUALS: Upper and Lower, 36 keys each.

PEDAL
KEYBOARD: 13 note, attached.

TONAL
CONTROLS: 19 tilting tablets and 3 knobs, including 8 preset tablets for upper manual, 6 preset tablets for lower manual; 3 preset tablets for pedal keyboard.

EXPRESSION: One expression pedal, controlling upper and lower manuals and pedals; also controlled by knob on end block.

VIBRATO: Controlled by tablets.

REVERBERATION: Controlled by knob.

PERCUSSION: Controlled by knob.

DIMENSIONS: 38-1/2" wide, 22-1/2" deep, 41-1/2" high with music rack.

AC INPUT: 110 watts.

OUTPUT: 15 watts.

WEIGHT: 165 lbs.



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