

B-3 Ultimo

The best of both worlds... that was the basic idea behind an instrument that was to combine the ultimate legend in organ-sound and modern styling for Hammond's B-3 50-year anniversary. To accomplish this Hammond Suzuki Japan entered into further co-operation with the great European designer Martin Haksteen.

The sound of a Hammond B-3 is one thing, a new contemporary design another entirely... the challenge was to marry both... In creating the B-3 Ultimo, Hammond succeeded in doing this and added another new superior instrument to the B-3 range.



Of course, the B-3 Ultimo has the best organ-sound generator that is available today, in its core... Just like its family-members, the legendary B-3 Classic and the flexible B-3 Portable, the B-3 Ultimo makes no compromise whatsoever to produce the unique and full-sound that only a Hammond can master. Where analog serves the ultimate sound-goal better, for instance in the mechanical key contact-system, this proven technique was used... in other instances, such as the virtual tone-wheels, cutting-edge digital technology was adopted.



The cabinet of the Ultimo is not just a housing for its technology. It was conceived as a goal on its own. The silvery legs that exhume both an impression of serenity as well as restlessness, carry a beautifully shaped body finished in black and silver high-polish lacquers.

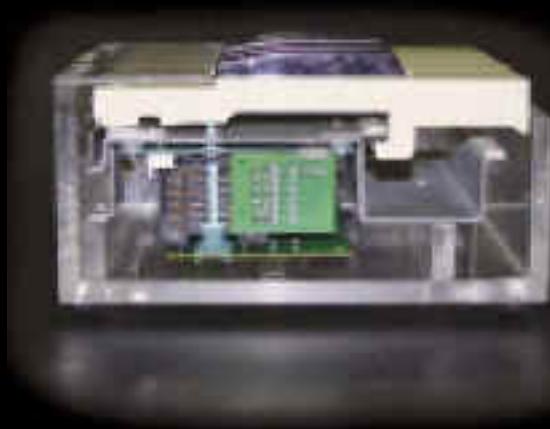


Seen from any angle, the Ultimo's unique curves are both sensual and functional. The final design of the Ultimo is not just a look, it is an expression of life-style and sheer adoration for beauty for beauty's sake...

Ultimate sound, cOntemporary design...
...that's why it's called ULTIMO !

Digital Tone Wheel™ Sound Engine and Direct Analogue Keying™

Let us now consider the new digital tone generator and see how it produces the sound. The unique Hammond B-3 sound is reproduced by a revolutionary newly designed sound generator system (96 digital Tone Wheels). This new digital Tone Wheel generator perfectly generates pure tones that is tones which have no harmonic content of their own. This purity is essential in order to attain a desirable tonal cohesion between the fundamental and its harmonics when they are mixed through the use of the drawbars.



When a manual key is pressed, it closes 10 small electrical switch contacts. These contacts are connected to the digital Tone Wheel generator as well as to the drawbars. The positions of the drawbars (which are under control of the player) determine the intensities of the individual electrical currents

corresponding to the fundamental and its harmonics. After leaving the drawbars, the various electrical currents are connected together (or "mixed") to form a single complex current which flows from the console to the Leslie cabinet where it is amplified to operate the speakers. The swell pedal varies the intensity (or volume) of this complex current before it reaches the speakers.

The Registration Principle of the Hammond Organ



This is the original, unique feature of the Hammond Organ which makes it completely different from any other organ. In the Hammond Organ, the basic elements of all musical tones (the fundamental and its harmonic overtones) are made separately available to the organist. Furthermore, their relative strengths may be adjusted at the will by the organist. The drawbars of the Hammond Organ are provided for this purpose. Flute-like tones, for instance, may be produced by a certain combination of these drawbars; string-like effects by another combination; or the effects of both strings and flutes by still a different combination of the same drawbars. Thus, the drawbars provide the tonal ingredients from which the various registrations may be compounded.

Pre-Set Combinations



Each manual of the organ is equipped with nine pre-set

combination keys. In addition, there are two sets of manually adjustable controls for each keyboard, thus making twenty-two different registrations which are instantly available, in addition, of course, to the many thousands of variations available by adjustment of the "harmonic drawbars." "VIBRATO AND CHORUS" has six possible positions corresponding to three degrees of vibrato and three degrees of vibrato chorus. The control pre-selects the extent of vibrato or vibrato chorus which will be obtained when either of the manual vibrato "ON/OFF" stops is used.

The Selective Vibrato Stops

The great and swell manuals are provided with separate



"ON/OFF" vibrato controls in the form of tilting stop tablets. The rotating control "VIBRATO AND CHORUS" has six possible positions corresponding to three degrees of vibrato and three degrees of vibrato chorus. The control pre-selects the extent of vibrato or vibrato chorus which will be obtained when either of the manual vibrato "ON/OFF" stops is used.

Touch Response Percussion Control

Percussion tones may be produced with a key-controlled "touch-response" in which desired notes of a melody may be accentuated. Now at your touch are effects like harp, chimes, orchestral bells, celeste, xylophone, marimba and a whole new world of fascinating percussion tones, which may be expressively introduced in a manner not found on any other organ.

Information Center

The drawbars, control tablets and rotary controls



affect the operations necessary for performance on the organ. Advanced features such as drawbar voice mode, pedal sustain length etc., are accessed using the Information Center. This allows the player to see and make changes. The Information Center Display and touch buttons are located on the left side of the instrument just below the stylish music-rest.

	B-3 Ultimo	Original B-3
KEYBOARDS	61-61-25	61-61-25
PRESET KEY	12keys Mechanical Latch	12keys Mechanical Latch
DRAWBARS		
SWELL(UPPER)	9 pitches 2 sets	9 pitches 2 sets
GREAT(LOWER)	9 pitches 2 sets	9 pitches 2 sets
PEDAL	2 pitches	2 pitches
PRESET MEMORY	Compact Flash-card	Change by Preset Panel
KEYING METHOD	Direct Analog Keying™	Direct Analog Keying
CONTACT	10-Mechanical contacts +Rubber contacts for velocity	9-Mechanical contacts
POLYPHONY	Full Polyphony	Full Polyphony
GENERATOR (Manual)	96-Digital Tone Wheels™	91-Tone Wheels
GEN. WAVEFORM	Changeable by CFcard (Flash ROM)	Fixed
GENERATOR (Pedal)	VASE II	Tone Wheels
VIBRATO/CHORUS	V1, V2, V3, C1, C2, C3 SWELL ON, GREAT ON	V1, V2, V3, C1, C2, C3 SWELL ON, GREAT ON
LESLIE	SLOW, STOP, FAST	SLOW, STOP, FAST
CONTROL	OVERDRIVE REVERB	
TONE CONTROL	BASS, TREBLE	
TERMINAL	LINE IN, LINE OUT 11p-LESLIE SOCKET HEADPHONE MIDI-OUT	PHONO INPUT 6p-LESLIE SOCKET
EXT MEMORY SLOT	COMPACT FLASH CARD	
DISPLAY	20x2 digits LCD	
WEIGHT		190 kg
DIMENSIONS		Closed, without pedal in cm : 123W x 73D x 97H Open, with pedal/bench in cm : 123W x 126D x 117H