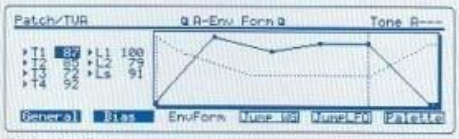
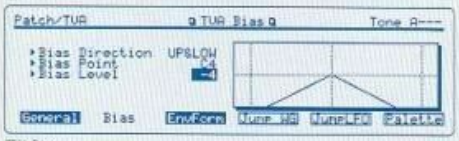
TVA (Time Variant Amplifier)

The TVA also has a four-stage envelope and two LFO settings. A key follow feature called Bias lets you change the balance between several layered Tones according to the key range.



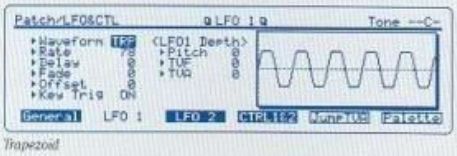
TVA Envelope Form



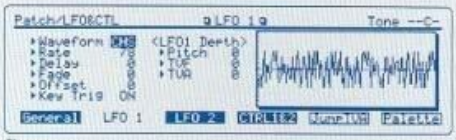
TVA Bias

LFOs (Low Frequency Oscillators)

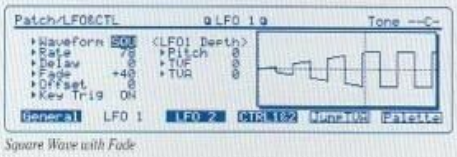
You can program the two LFOs independently for each Tone, which gives you up to eight LFOs per Patch. You also get a choice of modulation waveforms such as triangle, sine, sawtooth, square, trapezoid, sample & hold, random and chaos. These can also be assigned to the Wave Generator, TVF and TVA sections.



Trapezoid



Chaos



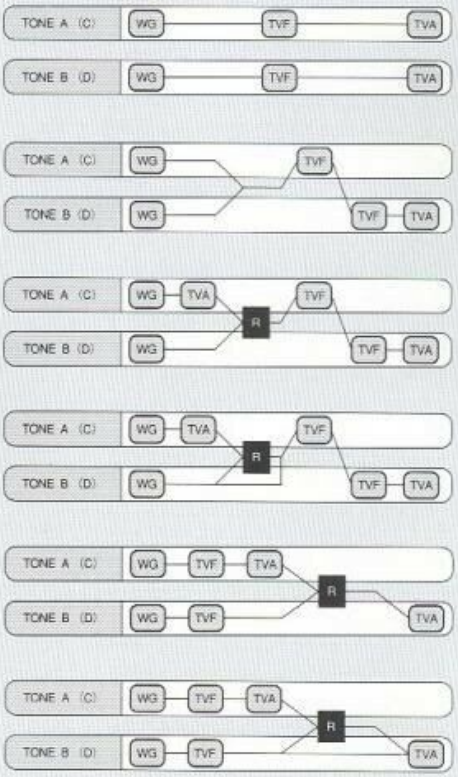
Square Wave with Fade



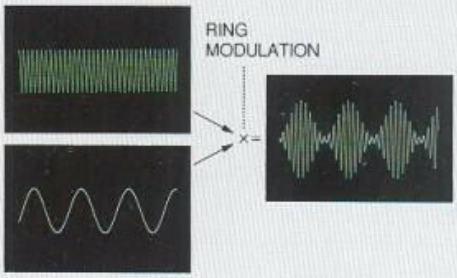
Assembling a Patch

Use up to four completed Tones to assemble a Patch. The JD-990's six Structures allow the Tones to actually interact, much like a modular synthesizer. Some of the JD-990's Structures utilize Ring Modulation, which merges Tones to create new frequencies. Structures allow you to use the JD-990's powerful filters serially, for incredible sweeping effects.

Structure Variations



Ring Modulation

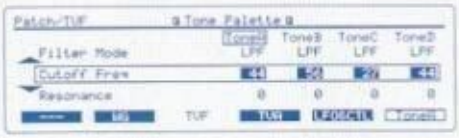


With Ring Modulation, you can combine two waveforms to create a new one with non-integer overtones not present in the original waveforms for an unpitched metallic-sounding resonance effect.

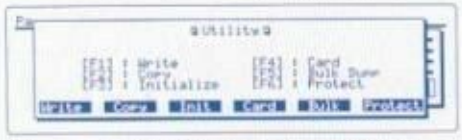
Versatile editing and processing flexibility that sets a new standard.

Easy and intuitive patch editing

Editing on the JD-990 is a snap with the large 320 × 80 dot LCD and clear parameter graphics. These informative displays offer easy confirmation of related parameters that let you edit quickly and smoothly. Editing procedures are streamlined, showing minimal hierarchies on the edit screens. This editing system allows you to jump from a detailed Edit Screen to a Palette Screen showing the overall Patch structure. You can even select which font to use in the display! The JD-990 provides both absolute editing and relative editing, so you can change a parameter of one Tone but maintain the values on the remaining Tones, or you can change the parameter globally for all Tones.



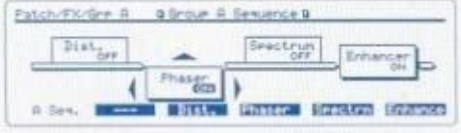
The Effects On/Off and Utility menus (data copy, write, etc.) are displayed in windows so that you have instant access to them from any other screen.



The convenient Preview function lets you audition a sound as you edit it by pressing the Volume knob.

Comprehensive onboard effects processing

The JD-990's powerful onboard digital effects utilize a newly developed high-performance Digital Signal Processor. On/off settings can be set individually for each of the seven effects or you can combine the effects in any order you like. With exceptional sound quality and realtime control, the JD-990's effects section surpasses that of many dedicated effects units.





Group A effects for processing the original sound

Distortion: Seven different types from mellow tube amp overdrive to fuzz tone.
Phaser: Manual, Rate, Depth, Resonance and Mix parameter controls are available.
Spectrum: Band-pass filter works on six frequencies to enable drastic tonal changes.
Enhancer: Emphasizes brightness and clarity by only processing the harmonics of the sound.

Group B effects add various effects to the original sound

Chorus: Variable delay time for creating a wide range of effects ranging from doubling to flanging.
Delay: 3-tap delay allows localizing sounds with different delay times at left, center and right, with delay times up to 3 seconds. Tap mode sets delay time with footswitch or front panel button. Delay syncs to MIDI Clock.
Reverb: Ten types including Room, Hall, Gate and Reverse, with reverb times up to 20 seconds.

3-band Parametric EQ

The JD-990 features versatile parametric equalization. There are three bands: low (200Hz—400Hz), mid (200Hz—8kHz) with flexible Q setting and high (4kHz—8kHz). You can boost or cut each EQ band by ±15dB, and EQ settings can be stored to each Patch.



Three Modes for versatile applications.

Patch Mode

For performing, this mode lets you play one Patch consisting of four Tones for solo performance. Both Group A and B effects can be applied.

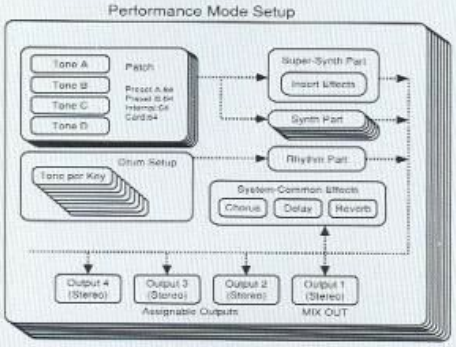
Rhythm Set Mode

In this mode, you can recall and play a rhythm set with specific rhythm tones assigned to each note.



Performance Mode

Performance mode is for using the JD-990 as an eight-Part multitimbral sound module consisting of six Synth parts, a Super Synth Part and a Rhythm Part. Both Group A and B effects can be used on the Synth Part. Level, pan, MIDI receive channel, and effects send level parameters can be set for each Part.



Expressive realtime performance control

Realtime tone parameter control

The JD-990 offers realtime control of tone parameters, allowing you to use two control sources for controlling four parameters for each of four Tones in a Patch. This adds up to impressive realtime control over 32 parameters per Patch. This gives you the ability to perform with a degree of expression never before achieved with an electronic instrument.

Control sources	*Pitch bender, modulation, aftertouch, expression, breath, foot*
Controllable parameters	*WG: Pitch* *TVF: Cutoff, resonance* *TVA: Level* *LFO 1/2: Pitch depth, TVF depth, TVF rate*

Realtime effects control

In the Patch Mode you can use two control sources for each Patch, each control source controlling a single parameter. For instance, you can control distortion drive with an expression pedal and control the chorus rate with the modulation lever as you play. In Performance mode, you can control the Group A effect parameters of the Super Synth Part.

Control sources	*Pitch bender, modulation, aftertouch, expression, breath, foot*
Controllable parameters	*Effects balance* *Distortion: Drive* *Phaser: Manual, Rate, Depth, Resonance, Mix* *Enhancer: Mix* *Chorus: Rate, Feedback, Level* *Delay: Feedback, Level* *Reverb: Time, Level*



Multitimbral power for any application

Super Synth Part

One of the JD-990's eight multitimbral parts, the Super Synth Part can be used with all seven effects simultaneously, plus the 3-band parametric EQ.

Pinpoint sound localization

The four Tones in a Patch and each Rhythm Set instrument can be panned individually to create a precise soundfield.

Multiple Outs

The JD-990 has four Stereo Out pairs (Mix Out, Direct Out 1-3), so you can independently assign an individual Part to each output for effects processing and mixing with external units. Audio output from Mix Out can be EQ'ed with Bass, Mid and Treble controls. Since an instrument in the Rhythm Part can be assigned to each output, each rhythm instrument can be individually processed with external effects like on sophisticated rhythm machines.

Full MIDI control

With the Part Information function, you can confirm incoming MIDI information such as program changes and pitch bend for each Part right on the display. Many of the JD-990's parameters are compatible with those of the JD-800, so you can create sounds on the JD-990 using the sliders of a connected JD-800.*

*JD-800 sliders cannot control new parameters available only on the JD-990.

The Stack function lets you connect up to eight JD-990s to allow intelligent MIDI overflow for applications requiring a large amount of polyphony.

Plenty of memory for any live performance requirement.

The JD-990 can store 16 Performances, 64 Patches and one Rhythm Set of user-defined data in its internal memory. The same amount of data can be saved to an M-256E Memory Card to double the JD-990's user memory.

Preset Waveforms

No.	Wave Name	No.	Wave Name	No.	Wave Name	No.	Wave Name
001	Syn Saw 1	050	Agogo Bells	099	Pink Noise	148	Fanta Bell
002	Syn Saw 2	051	Bottle Hit	100	Pitch Wind	149	Vibes
003	FAT Saw	052	Gamelan 1	101	Vox Noise 1	150	Steel Drums
004	FAT Square	053	Gamelan 2	102	Vox Noise 2	151	MMM VOX
005	Syn Pulse 1	054	Gamelan 3	103	Crunch Wind	152	Lead Wave
006	Syn Pulse 2	055	Tabla	104	Throat Wind	153	Feedbackwave
007	Syn Pulse 3	056	Pole Ip	105	Metal Wind	154	Rattles
008	Syn Pulse 4	057	Pluck Harp	106	Windago	155	Tin Wave
009	Syn Pulse 5	058	Nylon Str	107	Anklungs	156	Spectrum 1
010	Pulse Mod	059	Hooky	108	Wind Chime	157	Solid Kick
011	Triangle	060	Muters	109	Ac Piano 1	158	Room Kick
012	Syn Sine	061	Klack Wave	110	SA Rhodes 1	159	808 K Long
013	Soft Pad	062	Crystal	111	SA Rhodes 2	160	Hard SN
014	Wire Str	063	Digi Bell	112	E. Piano 1	161	808 SN
015	MIDI Clav	064	Finger Bell	113	E. Piano 2	162	90's SN
016	Spark Vox 1	065	Digi Chime	114	Clav 1	163	Bigshot SN
017	Spark Vox 2	066	Bell Wave	115	Organ 1	164	Power SN
018	Syn Sax	067	Org Bell	116	Jazz Organ	165	Power Tom
019	Clav Wave	068	Scrape Gut	117	Pipe Organ	166	Closed HH 1
020	Cello Wave	069	Strat Atk	118	Nylon GTR	167	Closed HH 2
021	Bright Digi	070	Hollow Bs	119	6STR GTR	168	Open HH
022	Cutters	071	Piano Atk	120	GTR HARM	169	Crash Cym
023	Syn Bass	072	EP Hard	121	Mute GTR 1	170	Ride Cym
024	Rad Hose	073	Clear Keys	122	Pop Strat	171	808 Claps
025	Vocal Wave	074	EP Distone	123	Stratus	172	Maraca
026	Wally Wave	075	Flute Push	124	SYN GTR	173	Cabasa Up
027	Brusky Ip	076	Shami	125	Harp 1	174	Cabasa Down
028	Digiwave	077	Wood Crak	126	Pick Bass	175	Slap Cga
029	Can Wave 1	078	Kimba Atk	127	E. Bass	176	Mute Cga 1
030	Can Wave 2	079	Block	128	Fretless 1	177	Mute Cga 2
031	EML 5th	080	Org Atk 1	129	Upright BS	178	Hi Conga
032	Wave Scan	081	Org Atk 2	130	Slap Bass 1	179	Lo Conga
033	Nasty	082	Cowbell	131	Slap & Pop	180	Snaps
034	Wave Table	083	Sm Metal	132	Slap Bass 2	181	Tambourine
035	Fine Wine	084	Strike Pole	133	Slap Bass 3	182	Cowbell 2
036	Funk Bass 1	085	Pizz	134	Flute 1	183	Saw+DC
037	Funk Bass 2	086	Switch	135	Trumpet 1	184	Sqr+DC
038	Strat Sust	087	Tuba Slap	136	Trombone 1	185	Pulse 1+DC
039	Harp Harm	088	Plink	137	Harmon Mute 1	186	Pulse 2+DC
040	Full Organ	089	Plunk	138	Alto Sax 1	187	Pulse 3+DC
041	Full Draw	090	EP Atk	139	Tenor Sax 1	188	Pulse 4+DC
042	Doo	091	TVF Trig	140	Blow Pipe	189	Pulse 5+DC
043	ZZZ Vox	092	Flute Tone	141	Trumpet SECT	190	Triangle+DC
044	Org Vox	093	Pan Pipe	142	Strings	191	Sine+DC
045	Male Vox	094	Bottle Blow	143	SYN VOX 1	192	Loop 1
046	Kalimba	095	Shaku Atk	144	SYN VOX 2	193	Loop 2
047	Xylo	096	Flugel Wave	145	Org Vox 2	194	Loop 3
048	Marim Wave	097	French	146	Pop Voice	195	Loop 4
049	Log Drum	098	White Noise	147	Fantasynth		

Preset Patches

Preset A Group				Preset B Group			
No.	Patch Name	No.	Patch Name	No.	Patch Name	No.	Patch Name
A-11	Killer Pad	A-51	12 String Guitar	B-11	JD-T. Chimes	B-51	990 Strings
A-12	Pulse Pad	A-52	Clang Guitar	B-12	Wave Bells	B-52	Pizzicato
A-13	Lovely Vox Pad	A-53	Stratomaster PJ	B-13	Tria Bells	B-53	Soaring Strings
A-14	Tempest	A-54	That's Funky	B-14	Lite Delay	B-54	Silky Strings
A-15	Deep Breath Pad	A-55	China Guitar	B-15	Like Dee	B-55	Carry on It
A-16	Pure Glass	A-56	Reso Strat	B-16	Reincarnate	B-56	B/V's Ooozo
A-17	Cherish	A-57	Big Country	B-17	Fantasy Bell	B-57	Dreaming Time
A-18	Glass Voices	A-58	Velo-Crunch	B-18	Ring Chimes	B-58	Waveola Vox Rize
A-21	Ac. Piano 2	A-61	Fretless Bass	B-21	Brass Section	B-61	Tangerine
A-22	Ac. Piano Hybrid	A-62	Woody Bass	B-22	Brass Mix	B-62	Twinkling String
A-23	Crystal Rhodes 2	A-63	Velo-Switch Bass	B-23	French Horn	B-63	Strat 'O' Dreams
A-24	E. Piano 1	A-64	Slap Bass	B-24	Bad Wolf Horn	B-64	Euro E. Piano
A-25	E. Piano 2	A-65	Pick Bass	B-25	Wagner Chorale	B-65	Betazoid Harp
A-26	Agogo Rhodes	A-66	Fingered Bass	B-26	Analog Brass 2	B-66	Glory
A-27	Soq E. Piano	A-67	Flubber Bass	B-27	Brass Vel. Fall	B-67	Orgatoron
A-28	Whispery Piano	A-68	House Bass	B-28	Sax Tpt Tbn	B-68	Oasis
A-31	Pipe Organ	A-71	Rubber Bass	B-31	Trumpet Solo	B-71	Winter Vox
A-32	Choir Organ	A-72	Big Stick Bass	B-32	Harmon Mute	B-72	From Far East
A-33	CLS 222 (Mod) 1	A-73	Wiry Sync Bass	B-33	Trombone Solo	B-73	Macho Swell
A-34	Ring Organ	A-74	A Funk Bass 1	B-34	Alto Sax	B-74	R Mod Brass Pad
A-35	CLS 222 (Mod) 2	A-75	A Funk Bass 2	B-35	Tenor Sax	B-75	The Pad
A-36	Jazz Organ	A-76	Techno Bass	B-36	Intimate Flute	B-76	Story Pad
A-37	Dist. Organ	A-77	Structure Bass	B-37	Mellowtron Flute	B-77	Hybrid Poly Syn
A-38	French New Organ	A-78	Mega Mono Bass	B-38	Panhandler	B-78	JXSweepee
A-41	Authentic Harp	A-81	Warm Vibe	B-41	Fusion Solo	B-81	Let's Dance!!
A-42	Harmo Harpo	A-82	Marimba	B-42	Tap Sequence	B-82	Great Expectation
A-43	Authentic Clav	A-83	Night Kalimba	B-43	Wavy Flutone	B-83	Lotting Go
A-44	Digital Clav	A-84	Perc Stab	B-44	Korean Tong Poo	B-84	Aqueous Strings
A-45	Nylon Guitar	A-85	Harlequin 990	B-45	Lyric Flute Solo	B-85	Cybernetic Empire
A-46	6 String Guitar	A-86	Cow Vibes	B-46	Band Sax Voice	B-86	Kalahari
A-47	Electric Guitar	A-87	Ethnic	B-47	Saw Lead	B-87	Passing Asteroid
A-48	Velo Harmonics	A-88	Africa Metals	B-48	Bubbly Lead	B-88	Pink Bomb



Specifications

Maximum Polyphony:	24 voices
Number of Multitimbral Parts:	1 Super Synth Part, 6 Synth Parts, 1 Rhythm Part
Memory Capacity	
System Setup:	Internal 1, Memory Card 1
Performance:	Preset A 16, Preset B 16, User 16, Memory Card 16
Patch:	Preset A 64, Preset B 64, User 64, Memory Card 64
Rhythm Set:	Preset A 1, Preset B 1, User 1, Memory Card 1
Built-in Effects	
Patch Mode, Performance Mode (Super Synth Part):	3-band EQ, Distortion, Phaser, Spectrum, Enhancer, Chorus, Delay, Reverb, Mix Out EQ
Performance Mode (Synth Part, Rhythm Part), Rhythm Set Mode:	3-band EQ, Chorus, Delay, Reverb, Mix Out EQ
Display:	320 × 80 dots backlit LCD
Connectors:	Mix Out (L/R), Direct Out 1(L/R) 2(L/R) 3(L/R), Phones, MIDI In/Out/Thru, PCM Card, Data Card
Dimensions:	482(W) × 281(D) × 88(H) mm (18-15/16" × 11-1/16" × 3-1/2") (EIA-2U)
Weight:	5.1 kg (11 lbs 4 oz)
Options:	SL-JD80 Series Sound Library Cards SO-PCM1 Series PCM Cards PN-JV80 Series Data Cards SR-JV80 Series Expansion Boards M-256E Memory Card RH-20/80/120 Stereo Headphones

*Specifications and appearance subject to change without notice.

Options

SL-JD80 Series
Sound Library Cards



SO-PCM1 Series
PCM Cards



PN-JV80 Series
Data Cards



SR-JV80 Series
Expansion Boards



M-256E
Memory Card

