

# YAMAHA

## RHYTHM PROGRAMMER

# RY20





# GIVE MORE LIFE TO YOUR MUSIC WITH THE RHYTHM PROGRAMMER THAT

Continuing its leadership at the forefront of state-of-the-art digital music technology, YAMAHA proudly introduces the RY20 Rhythm Programmer. To enhance your stage performance, multi-track recording, and desktop music, it offers features and capabilities hitherto only available in machines costing many times more. With the use of its exceptional GROOVE functions you can escape forever from the "mechanical feel" common to conventional rhythm machines.

- The high performance AWM tone generator delivers 300 state-of-the-art voices.
- 50 preset, 50 user, and 50 combination patterns, each with six sections, give you a total of 900 patterns.
- The sophisticated and musical groove functions add a "human feel" to the patterns while the swing function creates a looser feel.
- 20 preset and 20 user drum kits, each with five drum/percussion pad banks and a five-octave bass bank.
- Easy and efficient operation with the Jog/Shuttle Dial, simple and logical recording controls, and large custom LCD.
- 12 velocity sensitive pads.





# WITH THE RY20, REALLY GROOVES!

**RY20**  
RHYTHM PROGRAMMER

## 300 Brilliant Voices and 10 Versatile Effects

The RY20 comes loaded with 300 advanced voices from Yamaha's proven AWM (Advanced Wave Memory) tone generator system. Included are a wide selection of drums, effected drums, and percussion of all kinds. It also has a group of superb bass sounds to allow you to create a complete rhythm section on one easy-to-use machine.

For additional sonic coloration, the RY20 has a built-in DSP (Digital Signal Processor). Apply one of the six reverbs (hall  $\times$  2, room  $\times$  2, or plate  $\times$  2) or four delays to your drum kits. Create subtle echoes or dense swathes of sound. Each pad in a drum kit can have specific levels of the effect applied to it. Many variations are possible, giving you a wide scope of sounds to explore.

## A Total of 900 Patterns are Available

The RY20 offers 50 professionally-programmed preset patterns, any of which you may find suitable for your needs. In addition, there are 50 user pattern locations and an extra 50 combination pattern locations which you can use to create your own programs. Each pattern has six sections (INTRO,

MAIN A, MAIN B, FILL AB, FILL BA, and ENDING), and each section contains four tracks (bass drum, snare drum, hi-hat, and other instruments). Consequently, the RY20 has a total of 900 valuable patterns for you to select from. The ability to construct combination patterns is a unique feature of the RY20. Combination patterns are created simply by selecting tracks from the different preset and user patterns. There are millions of possible combinations, resulting in a wide variety of additional useful patterns.

## 20 User Drum Kits to Modify to Your Own Specifications

Assign any one of the 300 AWM voices to any pad in the drum kit. You can build up your kit, pad bank by pad bank, or just directly access each of the pads with the powerful editing functions available on the RY20. Edit the volume level, stereo pan, pitch, decay, and velocity sensitivity (level, pitch, decay, and balance) for each pad.

## Change the Groove and Add Some Swing

Imagine a rhythm machine so subtle and advanced that it could add the accents and minute timing shifts of a human drummer. Imagine no longer: the RY20 is that machine. Until re-

cently, such potential was only possible from complex, powerful, and expensive computer-based sequencers. Although it has extensive capabilities for your professional requirements, the RY20 is inexpensive and simple to operate.

You can subtly alter each pattern by applying one of the 14 "human feel" GROOVE functions. Make your pattern Heavy or OffBeat. Make it Snap or make it Loose. And you can make things really swing with the evanescent eighth or sixteenth note SWING function. The RY20 can do it all with the most musical results.

## An Efficient Interface and Complete MIDI Implementation

The RY20 features easy-to-use controls with a large, informative custom LCD. Change values quickly with the Shuttle Dial, then fine-tune them using the Jog Dial. Create patterns in real-time or step record mode using the high-quality, velocity-sensitive drum pads.

In addition to all its recording and performance features, the RY20 also has full MIDI capabilities (including General MIDI-compatible drum mapping) to allow full communication with the rest of your MIDI set-up.

Rear Panel





# Voice List

No.	Name	No.	Name	No.	Name	No.	Name	No.	Name	No.	Name	No.	Name	No.	Name	No.	Name	No.	Name
0	KTgt1	30	KAn1	60	SDry3	90	SRim5	120	SAAn5	150	HCIs1	180	Crsh4	210	TPwrH	240	AgogH	270	Taiko
1	KTgt2	31	KAn2	61	SDry4	91	SRck1	121	SAAn6	151	HCIs2	181	Crsh5	211	TPwrM	241	AgogL	271	Ethn1
2	KTgt3	32	KAn3	62	SDry5	92	SRck2	122	SAAn7	152	HCIs3	182	Spls1	212	TPwrL	242	Cabas	272	Ethn2
3	KTgt4	33	KAn4	63	SDry6	93	SRck3	123	SAAn8	153	HCIs4	183	Spls2	213	TPwrF	243	Marac	273	Botl1
4	KTgt5	34	KAn5	64	SDry7	94	SRck4	124	SAAn9	154	HCRom	184	Spls3	214	TJazH	244	WhstH	274	Botl2
5	KTgt6	35	KAn6	65	SDry8	95	SRck5	125	SAAn10	155	HCAMB	185	Chns1	215	TJazM	245	WhstL	275	S.Can
6	KDry1	36	KAn7	66	SPic1	96	SRck6	126	SElc1	156	HCST1	186	Chns2	216	TJazL	246	GuiS	276	TBell
7	KDry2	37	KAn8	67	SPic2	97	SRck7	127	SElc2	157	HCST2	187	OCymO	217	TJazF	247	GuiR	277	WBell
8	KDry3	38	KTec1	68	SPic3	98	SRck8	128	SSfx1	158	HCST3	188	OCymC	218	TBrsH	248	Clave	278	BgPip
9	KDry4	39	KTec2	69	SLgt1	99	SPwr1	129	SSfx2	159	HOS14	189	CrRol	219	TBrsM	249	WdBH	279	Shot1
10	KJaz1	40	KTec3	70	SLgt2	100	SPwr2	130	SSfx3	160	HOS15	190	ChRol	220	TBrsL	250	WdBIL	280	Shot2
11	KJaz2	41	KTec4	71	SLgt3	101	SPwr3	131	SSfx4	161	HOMid	191	Revs	221	TBrsF	251	CuicM	281	Bomb
12	KJaz3	42	KTec5	72	SLgt4	102	SPr1	132	SSfx5	162	HOHi	192	CymE1	222	TAn1	252	CuicO	282	Bomb2
13	KJaz4	43	KTec6	73	SLgt5	103	SPr2	133	SSfx6	163	HOM11	193	CymE2	223	TAn2	253	TriM	283	War
14	KJaz5	44	KTec7	74	SLgt6	104	SPr3	134	SSfx7	164	HOM2	194	CymE3	224	TElc1	254	TriO	284	Animl
15	KJaz6	45	KElc1	75	SLgt7	105	SPr4	135	SVoc1	165	HPedl	195	AnCrs	225	TElc2	255	Shakr	285	Mnstr
16	KRck1	46	KElc2	76	SLgt8	106	SPr5	136	SVoc2	166	HCAAn1	196	Gong1	226	TSE1	256	JBell	286	SFX1
17	KRck2	47	KElc3	77	SLgt9	107	SPr6	137	SVoc3	167	HCAAn2	197	Gong2	227	TSE2	257	BelTr	287	SFX2
18	KGat1	48	KElc4	78	STgt1	108	SPr7	138	SVoc4	168	HOAn	198	TDryH	228	Casta	258	AnCow	288	SFX3
19	KGat2	49	KElc5	79	STgt2	109	SPr8	139	SVoc5	169	RdHi	199	TDryM	229	Clap	259	AnCgH	289	SFX4
20	KGat3	50	KSfx1	80	STgt3	110	SPr9	140	SVoc6	170	RdMd	200	TDryL	230	Tmbrn	260	AnCgM	290	SFX5
21	KGat4	51	KSfx2	81	STgt4	111	SPr10	141	SRoll	171	RdLo	201	TDryF	231	Cowbl	261	AnCgL	291	SFX6
22	KGat5	52	KVoc1	82	STgt5	112	SPr11	142	BrTap	172	RdBr	202	TLgtH	232	Vibra	262	AnMrc	292	BFngr
23	KGat6	53	KVoc2	83	STgt6	113	SAMB1	143	BrSlp	173	HOAn	203	TLgtM	233	BongH	263	AnClv	293	BPick
24	KGat7	54	KVoc3	84	STgt7	114	SAMB2	144	BrSwL	174	Cup2	204	TLgtL	234	BongL	264	Stick	294	BFles
25	KGat8	55	KVoc4	85	STgt8	115	SAMB3	145	BrSwH	175	Cup3	205	TLgtF	235	CongM	265	Click	295	BSlp1
26	KGat9	56	KVoc5	86	SRim1	116	SAAn1	146	Rim1	176	Cup4	206	TRomH	236	CongH	266	HighQ	296	BSlp2
27	KAmb1	57	GmCs	87	SRim2	117	SAAn2	147	Rim2	177	Crsh1	207	TRomM	237	CongL	267	ScrH	297	BSyn1
28	KAmb2	58	SDry1	88	SRim3	118	SAAn3	148	RimA1	178	Crsh2	208	TRomL	238	TmbIH	268	ScrL	298	BSyn2
29	KAmb3	59	SDry2	89	SRim4	119	SAAn4	149	RimA2	179	Crsh3	209	TRomF	239	TmbIL	269	Fingr	299	BAco

KTgt: Tight kick  
 KDry: Dry kick  
 KJaz: Jazz kick  
 KRck: Rock kick  
 KGat: Gate kick  
 KAmb: Ambient kick  
 KAn: Analog kick  
 KTec: Techno kick  
 KElc: Electronic kick  
 KSfx: SFX kick  
 KVoc: Voice kick  
 GmCs: Gran cassa  
 SDry: Dry snare  
 SPic: Piccolo snare  
 SLgt: Light snare  
 STgt: Tight snare  
 SRim: Rim snare  
 SRck: Rock snare  
 SPwr: Power snare  
 SPR: Processed snare  
 SAmb: Ambient snare

SAAn: Analog snare  
 SElc: Electronic snare  
 SSfx: SFX snare  
 SVoc: Voice snare  
 SRol: Snare roll  
 BrTap: Brush tap  
 BrSlp: Brush slap  
 BrSwL: Brush swirl low  
 BrSwH: Brush swirl high  
 Rim: Rim shot  
 RimA: Analog rim  
 HCIs: Closed hi-hat  
 HCRom: Room closed hi-hat  
 HCAMB: Ambient closed hi-hat  
 HOMid: Open hi-hat mid  
 HOHi: Open hi-hat high  
 HOmL: Open hi-hat mute  
 HPedl: Pedal hi-hat  
 HCAAn: Analog closed hi-hat  
 HOAn: Analog open hi-hat

RdHi: Ride cymbal high  
 RdMd: Ride cymbal mid  
 RdLo: Ride cymbal low  
 RdBr: Brush ride cymbal  
 Cup: Ride cymbal cup  
 Crsh: Crash cymbal  
 Spls: Splash cymbal  
 Chns: Chinese cymbal  
 OCymO: Orchestra cymbal open  
 OCymC: Orchestra cymbal close  
 CrRol: Crash cymbal roll  
 HCIs: Chinese cymbal roll  
 Revs: Reverse cymbal  
 CymE: Electronic cymbal  
 AnCrs: Analog crash cymbal  
 Gong: Gong  
 TDryH: Dry tom high  
 TDryM: Dry tom mid  
 TDryL: Dry tom low  
 TDryF: Dry tom floor  
 TLgtH: Light tom high

TLgtM: Light tom mid  
 TLgtL: Light tom low  
 TRomH: Room tom high  
 TRomM: Room tom mid  
 TRomL: Room tom low  
 TRomF: Room tom floor  
 TPwrH: Power tom high  
 TPwrM: Power tom mid  
 TPwrL: Power tom low  
 TPwrF: Power tom floor  
 TJazH: Jazz tom high  
 TJazM: Jazz tom mid  
 TJazL: Jazz tom low  
 TJazF: Jazz tom floor  
 TBrsH: Brush tom high  
 TBrsM: Brush tom mid  
 TBrsL: Brush tom low  
 TBrsF: Brush tom floor  
 TAn: Analog tom  
 TElc: Electronic tom

TSE: SE tom  
 Casta: Castanet  
 Clap: Hand clap  
 Tmbrn: Tambourine  
 Cowbl: Cowbell  
 Vibra: Vibraslap  
 BongH: Bong high  
 BongL: Bong low  
 CongM: Conga high mute  
 CongH: Conga high  
 CongL: Conga low  
 TmbIH: Timbale high  
 TmbIL: Timbale low  
 AgogH: Agogo high  
 AgogL: Agogo low  
 Cabas: Cabasa  
 Marac: Maracas  
 WhstH: Samba whistle high  
 WhstL: Samba whistle low  
 GuiR: Guiro short  
 GuiRl: Guiro long

Clave: Claves  
 WdBH: Wood block high  
 WdBIL: Wood block low  
 CuicM: Cuica mute  
 CuicO: Cuica open  
 TriM: Triangle mute  
 TriO: Triangle open  
 Shakr: Shaker  
 JBell: Jingle bell  
 BelTr: Bell tree  
 AnCow: Analog cowbell  
 AnCgH: Analog conga high  
 AnCgL: Analog conga low  
 AnMrc: Analog maracas  
 AnClv: Analog claves  
 Stick: Stick  
 Click: Click (square wave)  
 HighQ: High Q  
 ScrH: Scratch high  
 ScrL: Scratch low

Fingr: Finger  
 Taiko: Taiko  
 Ethn: Ethnic  
 Botl: Bottle  
 S.Can: Steel can  
 TBell: Twinkle bell  
 WBell: Wind bell  
 BgPip: Big pipe  
 Shot: Gun shot  
 Bomb: Bomb  
 War: War  
 Animl: Animal  
 Mnstr: Monster  
 SFX: SFX  
 BFngr: Fingered bass  
 BPick: Picked bass  
 BFles: Fretless bass  
 BSlp: Slap bass  
 BSyn: Synthe bass  
 BAco: Acoustic bass

## Preset Pattern List

No.	Name	No.	Name	No.	Name	No.	Name	No.	Name
0	8-beat Pop	10	Rock Shuffle	20	6/8 Gospel	30	Rap	40	Mambo
1	16-beat Pop	11	Rock Boogie	21	Fast Gospel	31	Dance Shuffle	41	Samba
2	Detroit Pop	12	5/4 Rock	22	Funk	32	Boogie Woogie	42	Jazz Samba
3	24-beat Shuffle 1	13	7/8 Rock	23	Disco Funk	33	Ragtime	43	Bossa nova
4	24-beat Shuffle 2	14	Piano Ballad	24	Eurobeat	34	Swing	44	Cha Cha
5	Rock 1	15	Ballad	25	House	35	BeBop	45	Bomba
6	Rock 2	16	Ballad	26	Dance Pop	36	Jazz Waltz	46	Reggae 1
7	Rock 3	17	6/8 Ballad	27	Black Contemporary	37	Fusion 1	47	Reggae 2
8	Hard Rock	18	Analog Ballad	28	Techno	38	Fusion 2	48	Ska
9	Metal	19	6/8 Blues	29	Acid	39	Fusion Shuffle	49	Calyppo

## Preset Drum Kit List

Kit No.	Kit Name	Kit No.	Kit Name
0	Standard	10	Analogue
1	Ballad	11	Dance
2	Pops	12	Rap
3	Rhythm & Blues	13	Techno
4	Funk	14	Sound Effect1
5	Reggae	15	Sound Effect2
6	Room	16	Jazz
7	Rock	17	Fusion
8	Power	18	Brush
9	Electronic	19	Classic

## Specifications

<b>■ Tone Generator</b>	
Type	AWM (Advanced Wave Memory)
Polyphony	28-note
Voices	300
<b>■ Digital Signal Processor</b>	
Type	6 Reverbs (Hall1, Hall2, Room1, Room2, Plate1, Plate2), 4 Delays
Parameters	On/Bypass; Send Level, Return Level, Reverb Time, Feedback Gain, Delay Time
<b>■ Sequencer</b>	
Patterns	Patterns: 50 Presets, 50 Users, 50 Combinations Sections: Intro, Main A, Main B, Fill AB, Fill BA, Ending Tracks: Bass Drum, Snare Drum, Hi-hat, Others Tempo: 40 - 250 Note Resolution: 96 Clocks per Quarter Note Pattern Play: Initial Tempo, Swing, Groove (14 types), Velocity Modify, Clear, Copy, Name Pattern Record: Quantize, Time Signature, Measure, Click, Delete; Record Data (Level, Pad, Gate Time)
Songs	Songs: 50, Demo Song Play: Initial Tempo, Repeat, Chain, Clear, Copy, Name Song Record: Part, Part Delete, Part Insert, Click; Record Data (Pattern, Section, Fill In Start Position)

<b>■ Drum Kit</b>	
Drum Kits	20 Presets, 20 Users
Parameters	Assign, Level, Pan, Pitch, Decay, Sensitivities (Level, Pitch, Decay, Balance), Voice Polyphony, Alternate Group, Trigger/Note Driven, Pad Sensitivity, Chase, Copy, Name
Pad Banks	5 Drum Pad Banks (60 Pads), 1 Bass Pad Bank (60 Pads=5 Octaves)
Drum Pads	12 Velocity Sensitive Pads
<b>■ MIDI</b>	
Parameters	Sync., Drum/Bass Channels, Program Change, Note Number (4 Note Tables), Drum/Bass Volumes, Drum/Bass Expressions, Bulk Send
<b>■ Controls</b>	
Power, Volume, Jog/Shuttle Dials, Mode Keys, Page+/Page-, Enter, +1/-1 ◀▶ Cursors, Record, Stop, Play, Top, Backward, Forward, Track Select/Mute, Section	
<b>■ Indicators</b>	
Multi-function LCD (66 × 42 mm), Play LED, Record LED	
<b>■ Connectors</b>	
Headphones, Output (L/Mono and R), MIDI In/Out, DC In	
<b>■ Power Supply</b>	
Yamaha PA-3 or equivalent AC adaptor	
<b>■ Dimensions (W × D × H)</b>	
240 × 176 × 48 mm (9 1/2" × 6 7/8" × 1 7/8")	
<b>■ Weight</b>	
700g (1 lbs 9 oz)	

All Specifications subject to change without notice.

For details please contact:

**YAMAHA**  
 YAMAHA CORPORATION  
 P.O. Box 1, Hamamatsu, Japan