

YAMAHA TONE GENERATOR TG55





- Second-generation 16-bit AWM2 (Advanced Wave Memory) technology for superior sound.
- Versatile 1, 2, or 4-element voice architecture and complex envelope generators for extensive sample layering capability.
- Sophisticated dynamic filter system offers unlimited real-time timbre variation.
- 74 waveform samples in ROM.

Instruments and tone generators that play back digital sound samples are no longer a novelty. There's no doubt that they're important musical tools and are here to stay but ... something is missing.

The Yamaha TG55 Tone Generator revives the fine arts of musical control and creativity with a voice architecture that allows extensive sample layering and programmable dynamic timbre variation. With the TG55, individual sampled "waves" are building blocks that you arrange and process with a sophisticated dynamic filter system to create sound that's a perfect match for your music. You also have pitch envelope generators, amplitude envelope generators, a range of 34 programmable effects, and a wealth of other ways to customize your sound.

In this day and age of simple samples, the TG55 is a tone generator that puts the process of making music back on the right track.

Beyond Simple Samples

- 64 preset voices in ROM.
- 64-voice internal RAM memory.
- External waveform and voice card slots.
- Multi-timbre capability with 16 memory locations for multi-timbre setups.
- Drum voices allow 61 different drum and other waveforms to be assigned to different keys.
- Velocity switching for expressive power.
- Extensive voice editing functions.
- 34 high-quality programmable digital effects built in.
- Pannable stereo output.

AWM2:The Basic Technology Refined for Superior Sound

AWM2 — second-generation 16-bit Advanced Wave Memory — takes the musical reproduction of digitally sampled sound to new levels of performance. Technically speaking, the system deals with 16-bit wave data sampled at 32 or 48 kilohertz, 24-bit internal signal processing, and high-resolution 22-bit digital-to-analog converters. In terms of sound, the result rivals and often surpasses the quality of the finest compact disc players, giving you unprecedented clarity and realism in the reproduction of acoustic instruments and other

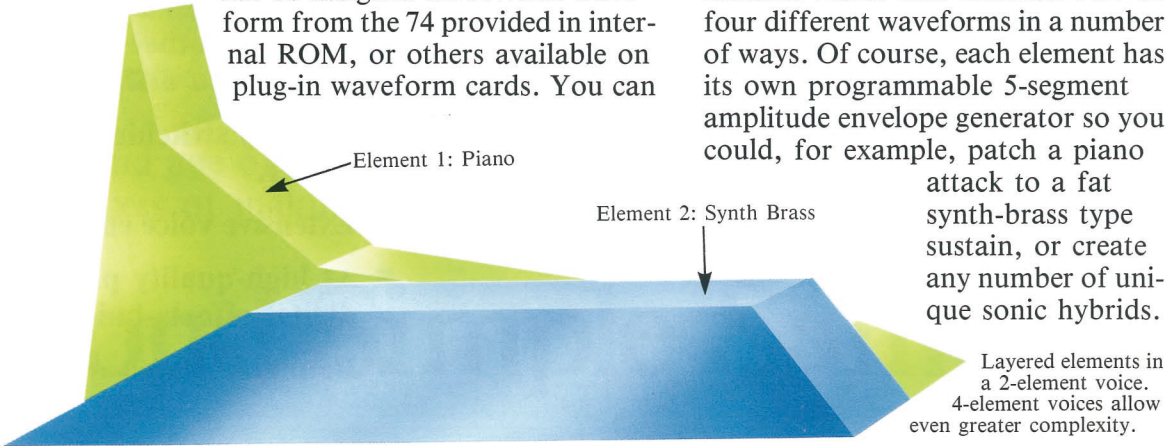
natural timbres. Unlike many sampled-waveform instruments, however, you're by no means "stuck" with the sampled sound. An extraordinarily versatile digital filter system lets you shape the sound in real time for extended expressive control. The TG55 packs a very impressive 2 megabytes of sampled waveform ROM, so you have a choice of 74 individual waveforms built in. External wave cards provide virtually unlimited potential for expansion.

TG55 Preset Wave List							
1	Piano	20	SynBrass	39	Saw	58	Bell Mix
2	E.Piano1	21	GtrSteel	40	Digital1	59	BD 1
3	E.Piano2	22	Gtr Gut	41	Digital2	60	BD 2
4	E.Piano3	23	12string	42	Digital3	61	BD 3
5	E.Piano4	24	E. Guitar	43	Pulse 10	62	SD 1
6	E.Piano5	25	E. Bass	44	Pulse 25	63	SD 2
7	E.Piano6	26	Popping	45	Pulse 50	64	SD 3
8	E.Piano7	27	WoodBass	46	Tri	65	Rim
9	Harpsi	28	Syn Bass	47	Voice	66	Tom 1
10	Organ 1	29	Violin	48	Piano Np	67	Tom 2
11	Organ 2	30	Strings	49	EPiano Np	68	HHclosed
12	Pipe	31	Chorus	50	Vibe Np	69	HH open
13	Trumpet	32	Itopia	51	Bottle	70	Crash
14	Mute Tp	33	Vibe	52	Tube	71	Ride
15	Trombone	34	Marimba	53	Vocal Ga	72	Claps
16	Flugel	35	Glocken	54	Bamboo	73	Cowbell
17	Sax	36	Shamisen	55	Noise	74	Shaker
18	Flute	37	Harp	56	Styroll		
19	Brass	38	Mtl Reed	57	Bulb		

A New Concept in Voice Architecture

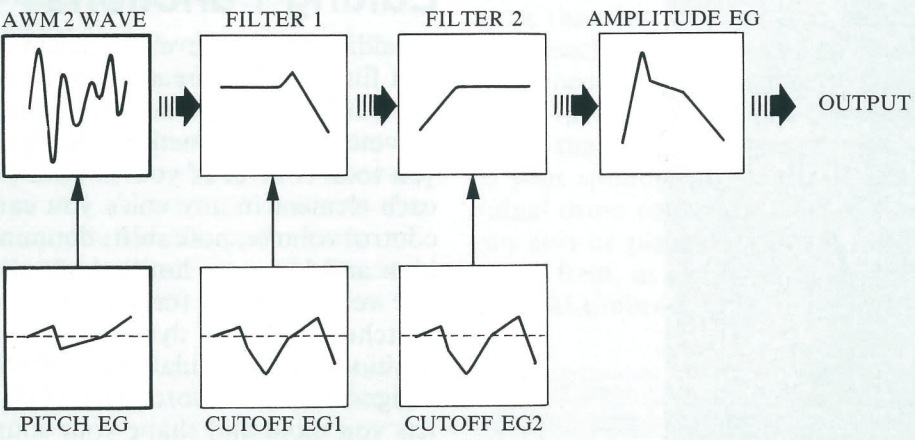
Each TG55 voice is composed of one, two or four "elements." Each element can be assigned an AWM2 waveform from the 74 provided in internal ROM, or others available on plug-in waveform cards. You can

have a single element voice that uses only a single waveform, or multi-element voices that combine two or four different waveforms in a number of ways. Of course, each element has its own programmable 5-segment amplitude envelope generator so you could, for example, patch a piano attack to a fat synth-brass type sustain, or create any number of unique sonic hybrids.



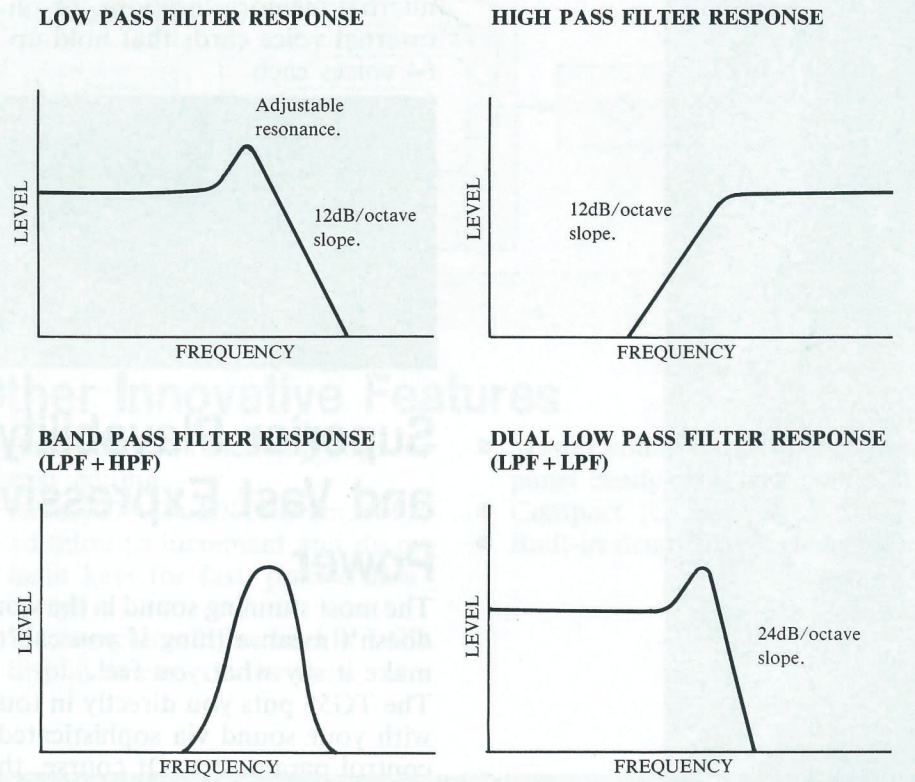
In addition to "layering" the elements in this way, each element can be assigned to a different section of the keyboard for exotic split keyboard setups. Each element also has a pitch envelope generator and two filter cutoff envelope generators that control the TG55's innovative digital filter system.

BASIC AWM2 ELEMENT



Advanced Digital Filters for All-new Dynamic Timbre Control

Each TG55 voice element features two digital filters. One is a low-pass type, and the other is switchable for either low-pass or high-pass response. Each filter has its own 6-segment envelope generator so that a virtually unlimited range of dynamic filtering patterns can be produced. Low-pass and high-pass filters can be combined to create a bandpass response, or both filters can be set for low-pass operation — each with a rolloff slope of 12-dB/octave — to produce a steep 24-dB/octave low-pass curve. And, for those of you who miss the distinct musical personality of analog synthesizer type filters, the TG55 filters even have a resonance parameter that allows you to boost their cutoff-frequency peak all the way into oscillation if you like. To sum up, in a four-element voice with two filters per element, you have a total of eight filters working all at once.



Extensive Voice Editing Functions

In addition to the envelope generators and filters we've already mentioned, the TG55 offers an extensive range of voice editing functions that give you total control of your sound. For each element in any voice you can control volume, note shift, detuning, high and low note limits, high and low velocity limits for velocity-switched keyboard dynamics, pan position, LFO modulation, controller assignments and more. The TG55 lets you mold and shape your sound until it fits the music perfectly. The TG55 comes with 64 preset voices in ROM, or you can create your own from scratch, starting with the bare waveforms provided in the TG55 ROM or others available via external waveform cards. Your sonic creations can be stored in any of the TG55's 64 internal memory locations, or on external voice cards that hold up to 64 voices each.



Superior Playability and Vast Expressive Power

The most stunning sound in the world doesn't mean a thing if you can't make it say what you feel. The TG55 puts you directly in touch with your sound via sophisticated control parameters. Of course, the standard pitch and modulation wheels perform their familiar functions, but you can also assign any MIDI

controller amplitude modulation, pitch modulation, filter cutoff modulation, direct filter cutoff control, envelope generator bias and volume ... not to mention after-touch pitch bias. And for a totally new type of expression there's velocity switching, which brings different elements into play depending on how hard you play the keys.

Built-in Effects Add Essential Ambience

Yamaha is already firmly established as the leader in digital signal processing for professional music and production applications. The TG55 gives you a healthy helping of this ambience-enhancing capability built in. You have direct access to 34 effect programs including reverb, delay, early reflection, tone control and distortion — all programmable — to give your sound the extra impact it deserves.

TG55 Effect Programs	
1	Rev.Hall (Reverb Hall)
2	Rev.Room (Reverb Room)
3	Rev.Plate (Reverb Plate)
4	REVChrch (Reverb Church)
5	Rev.Club (Reverb Club)
6	Rev.Stage (Reverb Stage)
7	BathRoom (Reverb Bath Room)
8	Rev.Metal (Reverb Metal)
9	Delay (Single Delay)
10	DelayL/R (Stereo Delay)
11	St.Echo (Stereo Echo)
12	Doubler1 (Single Doubler)
13	Doubler2 (Stereo Doubler)
14	PingPong (Ping Pong Delay)
15	Pan Ref. (Pan Reflections)
16	EarlyRef (Early Reflections)
17	Gate Rev (Gate Reverb)
18	Rvs Gate (Reverse Gate)
19	FB E/R (Feedback Early Reflections)
20	FB Gate (Feedback Gate)
21	FB Rvs (Feedback Reverse)
22	Dly1&Rev (Delay 1 & Reverb)
23	Dly2&Rev (Delay 2 & Reverb)
24	Tunnel (Tunnel Reverb)
25	Tone 1 (Tone Control 1)
26	Dly1&T1 (Delay 1 & Tone Control 1)
27	Dly2&T1 (Delay 2 & Tone Control 1)
28	Tone 2 (Tone Control 2)
29	Dly1&T2 (Delay 1 & Tone Control 2)
30	Dly2&T2 (Delay 2 & Tone Control 2)
31	Dist&Rev (Distortion & Reverb)
32	Dist&Dly1 (Distortion & Delay 1)
33	Dist&Dly2 (Distortion & Delay 2)
34	Dist.(Distortion)

Multi-timbre Mode and Built-in Drums

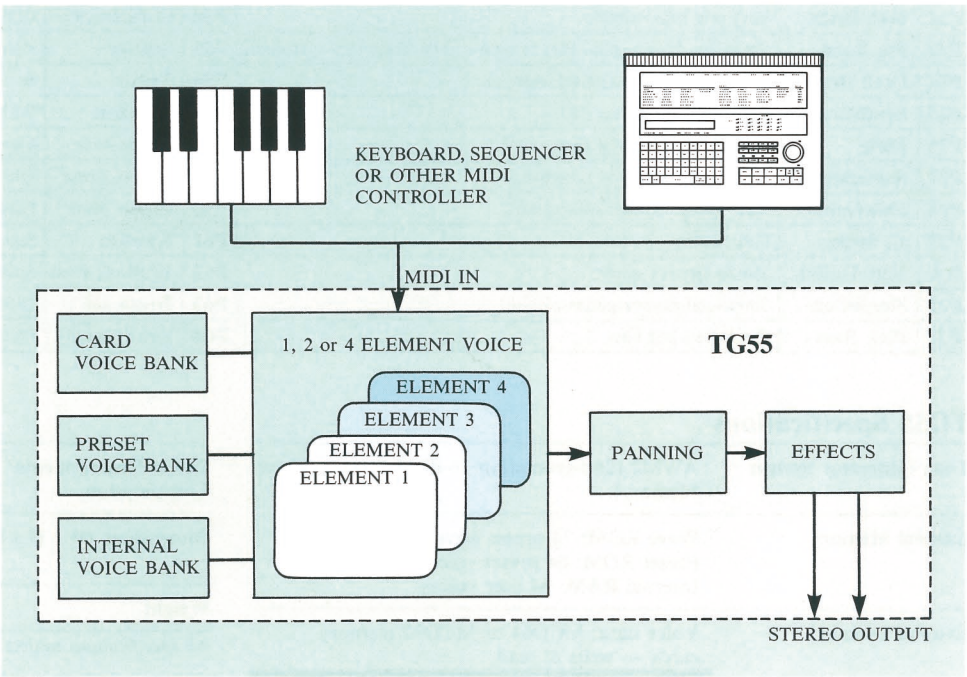
In addition to its normal voice play mode, the TG55 features a multi-timbre mode in which up to 16 different voices can be assigned to 16 different MIDI channels — so the TG55, a master keyboard and a sequencer are all you need to go into full-swing music production. 16 memory locations are provided for complete "MULTI" setups including voice-to-channel assignments, individual voice volume, note shift, tuning, panning, and effects. The TG55 even supplies a range of high-quality drum and percussion waveforms that can be assigned to different keys and handled as a single voice — so you don't need an external drum machine.

Voice Number 63 : Drum Set 1

Key	Wave Name	Key	Wave Name
		C6	Syn Bass
		B5	Syn Bass
A#5	Syn Bass	A5	Syn Bass
G#5	Syn Bass	G5	Syn Bass
F#5	Syn Bass	F5	Syn Bass
		E5	Syn Bass
D#5	Syn Bass	D5	Syn Bass
C#5	Syn Bass	C5	Syn Bass
		B4	Bulb
A#4	Vocal Ga	A4	Vocal Ga
G#4	Bell Mix	G4	Bottle
F#4	Bottle	F4	Bottle
		E4	Styroll
D#4	Shaker	D4	Ride
C#4	Bamboo	C4	Vibe NP
		B3	Vibe NP
A#3	Claps	A3	Claps
G#3	Popping	G3	Popping
F#3	Tube	F3	Tube
		E3	Tube
D#3	Ride	D3	Ride
C#3	Crash	C3	Crash
		B2	HH open
A#2	Crash	A2	HH close
G#2	Shaker	G2	Cowbell
F#2	Claps	F2	Tom 1
		E2	SD 1
D#2	Rim	D2	Tom 1
C#2	SD 2	C2	Tom 1
		B1	Tom 1
A#1	SD 3	A1	BD 1
G#1	BD 2	G1	Tom 2
F#1	Tom 2	F1	Tom 2
		E1	Tom 2
D#1	BD 3	D1	Tom 2
C#1	BD 2	C1	BD 2

Complete MIDI Implementation

Since the TG55 may be asked to perform in any MIDI system, it has been provided with a complete set of MIDI parameters for maximum compatibility and versatility. Of course, the receive channel and device number are programmable, and a range of bulk dump functions make data transfers to bulk storage devices quick and easy.



And Yes, It's Stereo

The TG55's stereo outputs are behind more than just a few stereo effects. Since each element in any voice can be panned to any position in the stereo sound field, you can create true stereo voices that will add a new dimension to your sound. Any of the 61 individual drum sounds in a drum voice can also be placed anywhere in the stereo field, as can individual voices in multi-timbre setups.

Other Innovative Features

- Page-accessed function groups for easy editing.
- Rotary DATA ENTRY control in addition to increment and decrement keys for fast, precise data entry.
- 16-character x 2-line backlit LCD display is easy on the eyes.
- Master volume control and front-panel headphone jack.
- Compact 1U rack-mount size.
- Built-in demo playback feature.

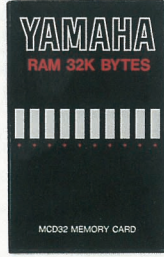
REAR PANEL



TG55 Voice List

P01 Piano	Orthodox acoustic piano.	P33 Thumb Bass	Play hard for slap bass sound.
P02 Voyager	Choir with "sizzle." Play long chords.	P34 SynBadBass	Funky synth bass.
P03 Pro55Brass	Fat analog brass pad.	P35 VCO Bass	Fat analog bass.
P04 Elektrodes	Mellow electric piano.	P36 Violin	Solo violin with after-touch vibrato.
P05 Zuratustra	Big orchestra Brass volume on MW.	P37 ChamberStr	Small violin section.
P06 DawnChorus	Breathy choir. MW fades out breath.	P38 VCF String	Analog synth strings. Brightness on MW.
P07 GX Dream	Greatest Dreaming Sound.	P39 Nova Quire	Choir with a unique attack.
P08 GrooveKing	Classic funky, resonant synth voice.	P40 Vibraphone	Traditional vibraphone with tremolo on MW.
P09 DistGuitar	Heavy guitar. Slow fade to feedback.	P41 Takerimba	Bamboo marimba. Brightness on MW.
P10 ZenAirBell	Percussive bell/gong combination.	P42 Glocken	Glockenspiel Brightness on MW.
P11 FullString	Light touch for small, heavy for large string section.	P43 DigiBell	Spacious synth bell.
P12 JazzMan	Split wood bass and trumpet. MW swaps horns.	P44 Oriental	Oriental orchestra. Light touch for string section only.
P13 ClassPiano	Classical Grand Piano.	P45 VCO Lead	Analog sawtooth lead voice.
P14 RockPiano	Fat piano. Perfect for chord work.	P46 Spirit VCF	Analog synth with big, slow filter sweep.
P15 DX E.Piano	Electronic piano.	P47 OZ Lead	Soft synth lead.
P16 Hard EP	Electric piano with sharp attack and hard tone.	P48 Get Lucky	Fat square-wave synth sound with detune on MW.
P17 Cry Clav	Automatic "wah" clav with resonant attack.	P49 Gamma Band	Oriental percussion ensemble. MW fades in metal drums and bells.
P18 Funky Clav	Fat, funky clav.	P50 Metal Reed	Harmonica or accordion with after-touch pitch bend.
P19 Deep Organ	Rock Organ.	P51 Modomatic	Choir with big MW filter sweep.
P20 Warm Organ	Full, rich organ with rotating speaker effect.	P52 DataStream	Best with long notes.
P21 Trumpet	Solo trumpet.	P53 Mystichoir	Play long chords for shifting notes.
P22 Stab Brass	Thin pop brass section.	P54 St.Michael	Choir with bells on release.
P23 Big Band	Big unison horn section. Play in octaves. MW fades to solo trumpet.	P55 Scatter	Voice on staccato notes, filtered synth on long tones.
P24 Orch Brass	Big classical brass section with pan.	P56 Triton	Best with long chords.
P25 SynthBrass	Powerful synth brass pad.	P57 Amazon	Wide touch range.
P26 Flute	Breathy when played hard.	P58 SatinGlass	Metallic, spacious synth voice.
P27 Saxophone	Solo sax with lots of presence.	P59 BrassChime	Filtered brass with chimes.
P28 FolkGuitar	Steel-string acoustic folk guitar.	P60 Piano Mist	Piano bell. MW fades to staccato filtered voice.
P29 12 String	Full 12-string guitar.	P61 Xanadu	Solo multi-tuned flute.
P30 MuteGuitar	Muted electric guitar.	P62 WdBass Duo	Split wood bass and piano.
P31 SingleCoil	Single-coil electric guitar pickup.	P63 Drum set 1	Drum set including bass and sound effects.
P32 Pick Bass	Punchy picked bass.	P64 Drum set 2	Drum set including bass and sound effects.

TG55 Specifications

Tone Generator System	AWM2 (2nd-generation 16-bit Advanced Wave Memory).	Power Requirements/Consumption	US & Canadian models: 120V/12 watts General model: 220—240V/12 watts
Internal Memory	Wave ROM: 74 preset waveforms. Preset ROM: 64 preset voices. Internal RAM: 64 user voices.	Dimensions (W × H × D)	480 × 44 × 310 mm (18-7/8" × 1-3/4" × 12-1/4")
External Memory	Voice data: MCD64 or MCD32 memory cards — write & read. Wave data: Yamaha wave cards — read only.	Weight	4.2 kg (9 lbs. 4 oz)
<i>All specifications subject to change without notice.</i>			
Display	16-character × 2-line backlit LCD.	Optional Memory Cards	
Controls	DATA ENTRY, MASTER VOLUME.	Yamaha MCD64 and MCD32 Memory Cards are light and compact, providing convenient external storage for your original TG55 voices.	
Keys & Switches	POWER, VOICE, MULTI, DEMO, UTILITY, EDIT/COMPARE, STORE/COPY, -1/NO, +1/YES, PAGE -, PAGE +, <, >, EXIT, MEMORY, ENTER, SELECT.	 MCD64  MCD32	
Output Connectors	Front panel: PHONES. Rear panel: OUTPUT R & L/MONO, INDIVIDUAL OUTPUT 1 & 2.		
MIDI Connectors	IN, OUT, THRU.		

For details please contact:

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