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.
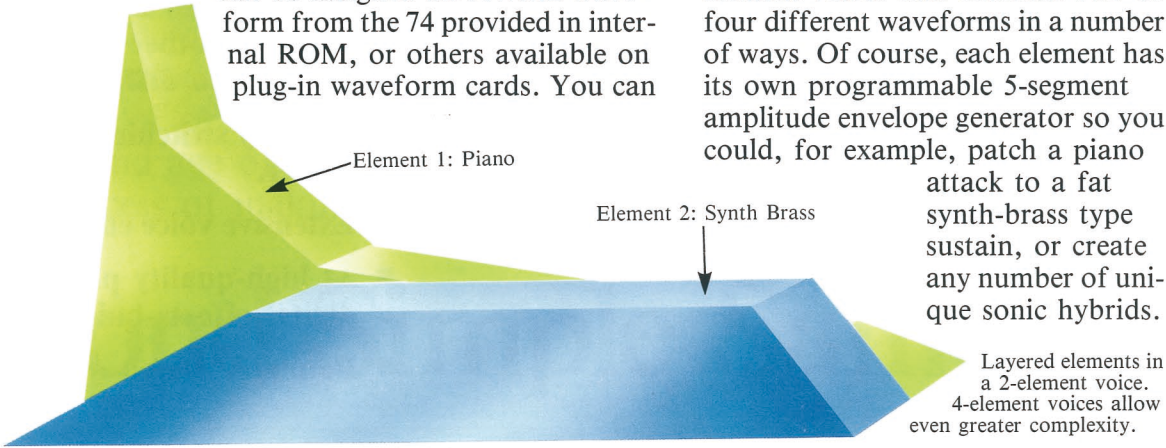
Unlike many sampled-waveform instruments, however, you're by no means "stuck" with the sampled sound. An extraordinarily versatile digital filter system lets you shape the sound in real time for extended expressive control.

The TG55 packs a very impressive 2 megabytes of 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		

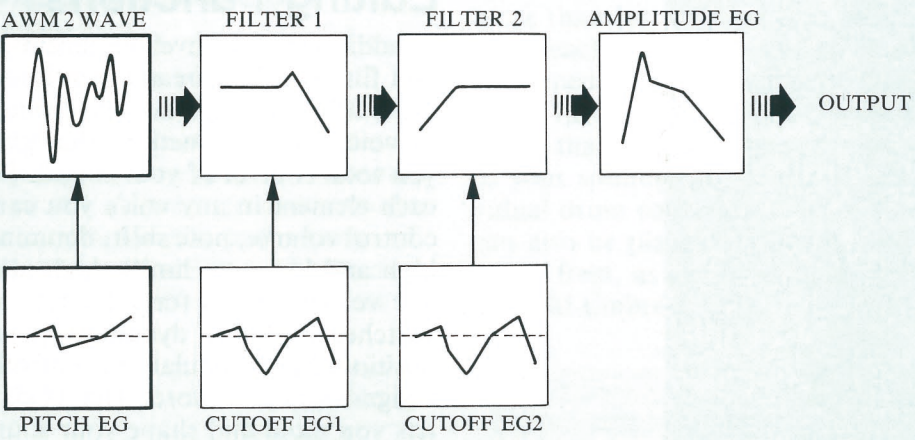## A New Concept in Voice Architecture

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.

Element 1: Piano

Element 2: Synth Brass

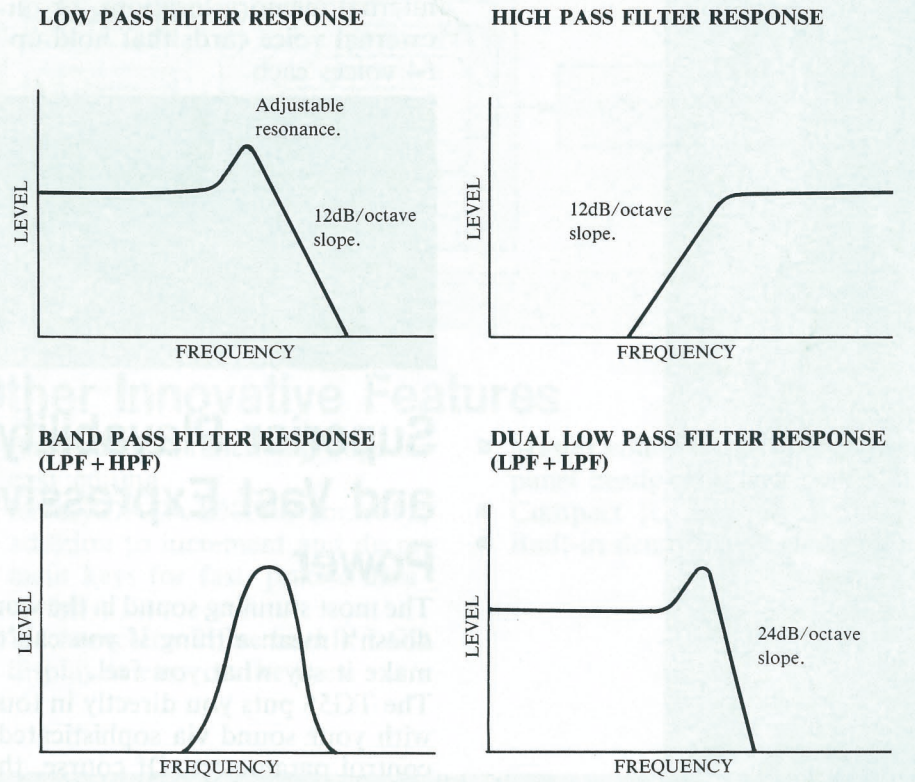Layered elements in a 2-element voice. 4-element voices allow even greater complexity.

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

AWM 2 WAVE → FILTER 1 → FILTER 2 → AMPLITUDE EG → OUTPUT

PITCH EG CUTOFF EG1 CUTOFF EG2

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.

LOW PASS FILTER RESPONSE — Adjustable resonance. 12dB/octave slope.

HIGH PASS FILTER RESPONSE — 12dB/octave slope.

BAND PASS FILTER RESPONSE (LPF + HPF)

DUAL LOW PASS FILTER RESPONSE (LPF + LPF) — 24dB/octave slope.

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.

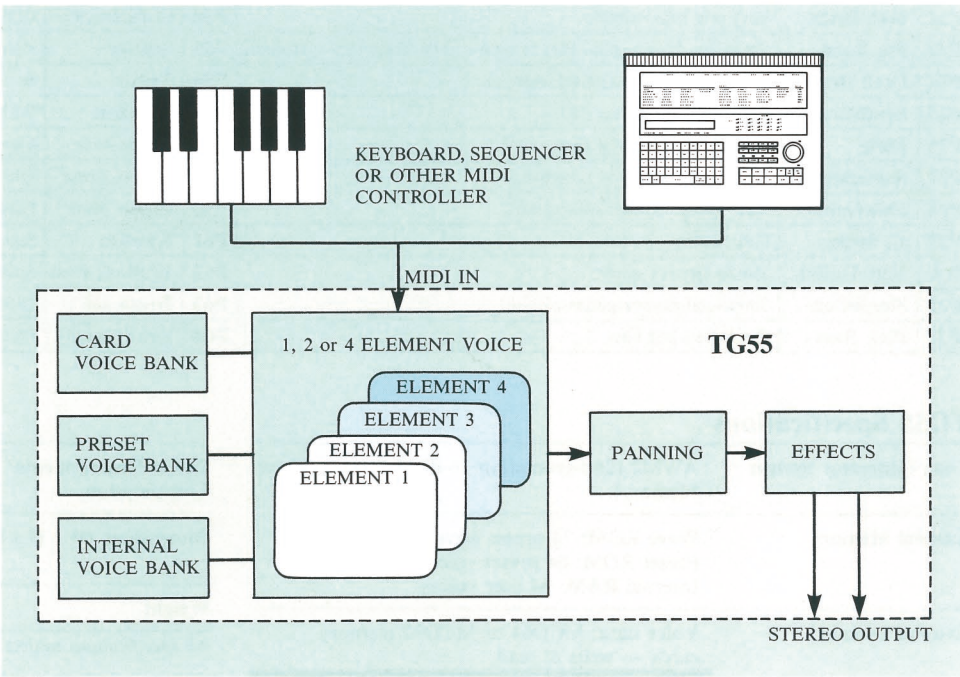| TG55 Effect Programs	
1	Rev.Hall (Reverb Hall)
2	Rev.Room (Reverb Room)
3	RevPlate (Reverb Plate)
4	REVChrch (Reverb Church)
5	Rev.Club (Reverb Club)
6	RevStage (Reverb Stage)
7	BathRoom (Reverb Bath Room)
8	RevMetal (Reverb Metal)
9	Delay (Single Delay)
10	DelayL/R (Stereo Delay)
11	St.Echo (Stereo 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
A#5	Syn Bass
G#5	Syn Bass
F#5	Syn Bass
D#5	Syn Bass
C#5	Syn Bass
A#4	Vocal Ga
G#4	Bell Mix
F#4	Bottle
D#4	Shaker
C#4	Bamboo
A#3	Claps
G#3	Popping
F#3	Tube
D#3	Ride
C#3	Crash
A#2	Crash
G#2	Shaker
F#2	Claps
D#2	Rim
C#2	SD 2
A#1	SD 3
G#1	BD 2
F#1	Tom 2
D#1	BD 3
C#1	BD 2

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

REAR PANEL

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 × 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.

TG55 Voice List

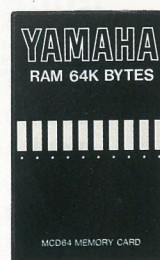|					
P01	Piano	Orthodox acoustic piano.	P33	Thumb Bass	Play hard for slap bass sound.
P02	Voyager	Choir with "sizzle." Play long chords.	P34	SynBadBass	Funky synth bass.
P03	Pro55Brass	Fat analog brass pad.	P35	VCO Bass	Fat analog bass.
P04	Elektrodes	Mellow electric piano.	P36	Violin	Solo violin with 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 vibrophone 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).
Internal Memory	Wave ROM: 74 preset waveforms. Preset ROM: 64 preset voices. Internal RAM: 64 user voices.
External Memory	Voice data: MCD64 or MCD32 memory cards — write & read. Wave data: Yamaha wave cards — read only.
Display	16-character × 2-line backlit LCD.
Controls	DATA ENTRY, MASTER VOLUME.
Keys & Switches	POWER, VOICE, MULTI, DEMO, UTILITY, EDIT/COMPARE, STORE/COPY, −1/NO, +1/YES, PAGE−, PAGE+, <, >, EXIT, MEMORY, ENTER, SELECT.
Output Connectors	Front panel: PHONES. Rear panel: OUTPUT R & L/MONO, INDIVIDUAL OUTPUT 1 & 2.
MIDI Connectors	IN, OUT, THRU.

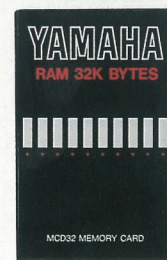|	
Power Requirements/ Consumption	US & Canadian models: 120V/12 watts General model: 220—240V/12 watts
Dimensions (W × H × D)	480 × 44 × 310 mm (18-7/8" × 1-3/4" × 12-1/4")
Weight	4.2 kg (9 lbs. 4 oz)

All specifications subject to change without notice.

Optional Memory Cards

Yamaha MCD64 and MCD32 Memory Cards are light and compact, providing convenient external storage for your original TG55 voices.

YAMAHA RAM 64K BYTES — MCD64 MEMORY CARD — **MCD64**

YAMAHA RAM 32K BYTES — MCD32 MEMORY CARD — **MCD32**

For details please contact:

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