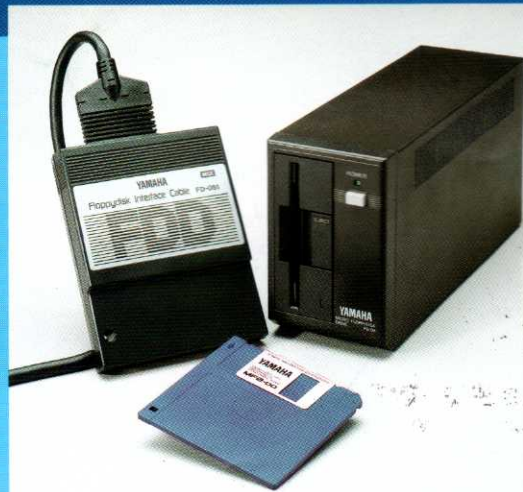


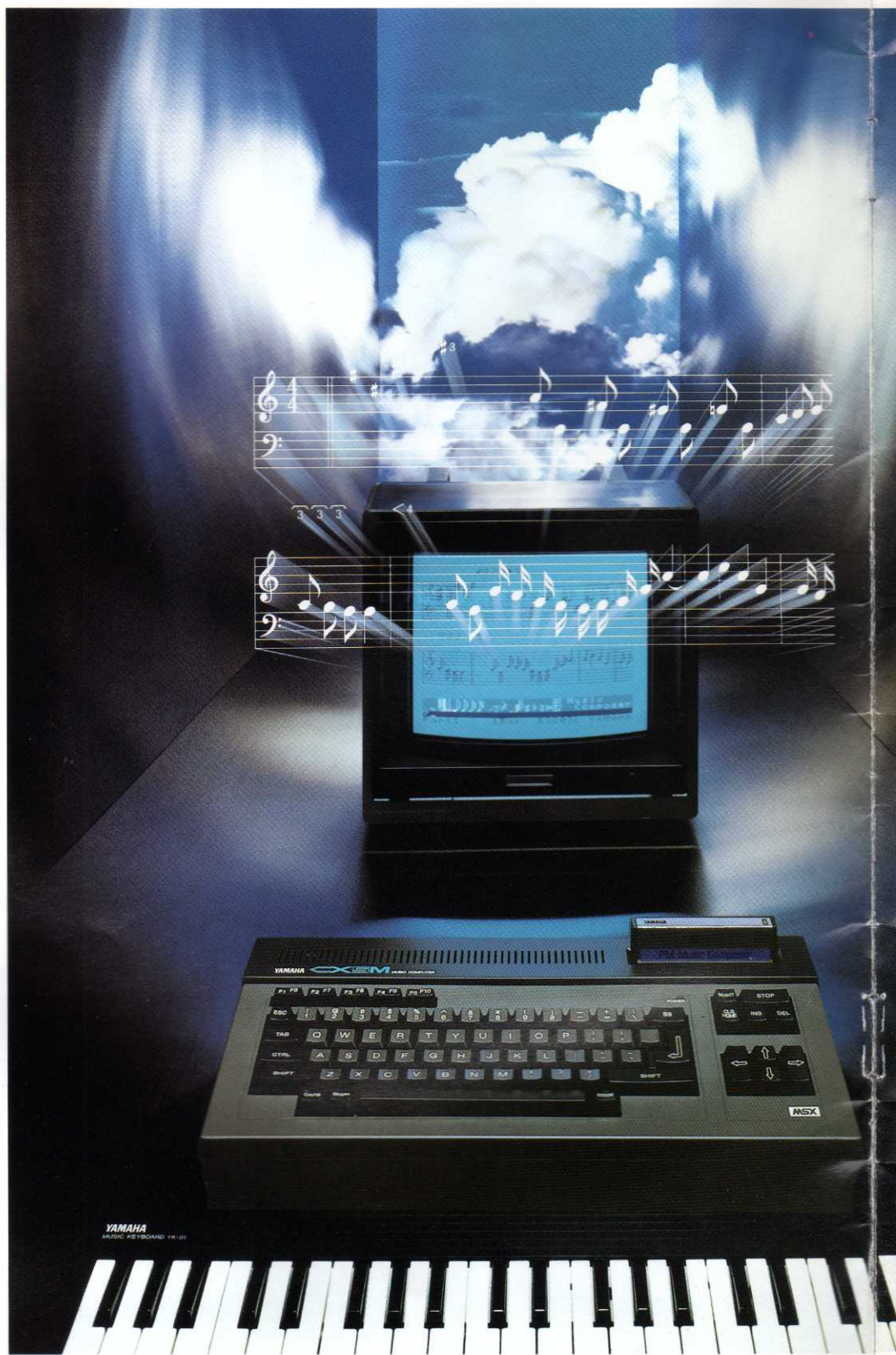
YAMAHA MUSIC COMPUTER SYSTEM



YAMAHA

The Yamaha Music Computer Brings Y

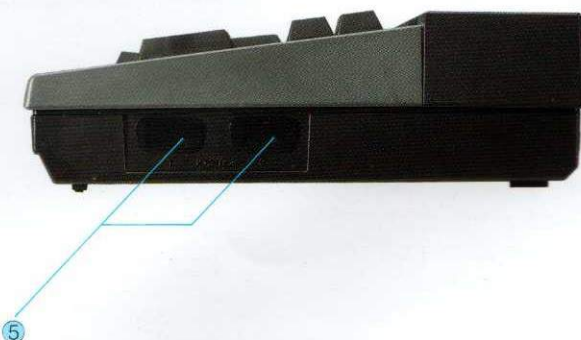
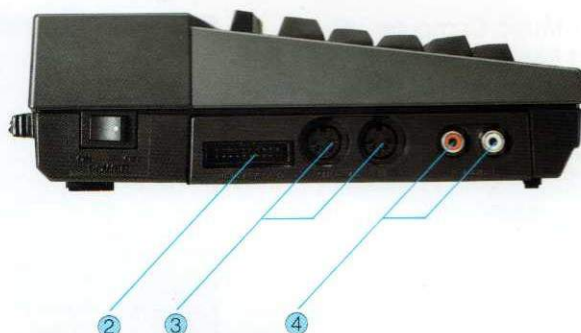
For those with a unique musical vision, Yamaha presents the Music Computer. Here at last is a compact computer that incorporates renowned Yamaha music technology. Like our DX Series Digital Programmable Algorithm Synthesizers, the Yamaha Music Computer has a built-in digital FM tone generator, along with 46 amazing preset voices. With an optional YK-01 "mini" music keyboard, a standard-size YK-10 or YK-20 keyboard, your Yamaha Music Computer becomes a versatile, high-quality performance synthesizer with 8-note polyphonic output and a programmable split keyboard function. It's also MIDI-compatible and can communicate with other MIDI-equipped instruments like synthesizers and drum machines. In addition to the extensive capabilities inherent in the Yamaha Music Computer, optional Yamaha MSX software programs like the FM Music Composer, FM Voicing Program II, DX7 Voicing Program, RX Editor, MIDI Recorder, and FM Music Macro II give you control of every conceivable aspect of the music creation process. With the FM Music Composer, for instance, you can compose and arrange polyphonic performances of a limitless variety, entering notes from either the computer or music keyboard while the computer displays your score right on your monitor screen. The FM Voicing Program allows you to program the Yamaha Music Computer's tone generator yourself, to recreate acoustic tones with amazing accuracy, or create your own voices from scratch. You can then build a library of original and personalized voices on standard audio tape via the special cassette interface on the Music Computer. The Yamaha Music Computer is an indispensable tool for today's musician. With the rapidly expanding range of Yamaha music software and available MIDI-compatible instruments, the Yamaha Music Computer can take you to the forefront of today's—and tomorrow's—music.



Your Musical Vision to Life

CX5M Connectors and Terminals

- ① The cartridge slot accepts program cartridges, FD-051 interface, and expansion RAM cartridges.
- ② 20-pin music keyboard connector for YK-01, YK-10, or YK-20 music keyboard.
- ③ MIDI OUT/IN terminals for connecting the computer to external MIDI keyboards, sequencers, tone generators, and rhythm machines.
- ④ Audio outputs (L/R) for connecting the computer to a mixer or sound system.
- ⑤ Joystick controller jacks for connection of a joystick (for game software) or the MU-01 MSX Mouse.
- ⑥ The rear slot (same as cartridge slot) facilitates alternate or tandem insertion of program cartridges, peripheral equipment, expansion RAM cartridges, and adaptors.
- ⑦ 14-pin Printer connector for PN-101 Dot Impact Printer.
- ⑧ Data cassette terminal for music data storage and retrieval using a standard audio cassette recorder and tape.
- ⑨ Video monitor output jack.



SPECIFICATIONS

CPU	Z 80A
ROM	32 kB
RAM	RAM 32 kB, VRAM 16 kB
CRT Controller LSI	TMS 9929A
Character Display	32 x 24
Graphics Display	256 dot x 192 dot
Graphics Colors	16
FM Voice Generator	8 oct. 8 note polyphonic
FM Voice Generation LSI	YM-2151 (YAMAHA)
Dimensions	423 x 68 x 208 mm (M x H x D)
Weight	3.5 kg

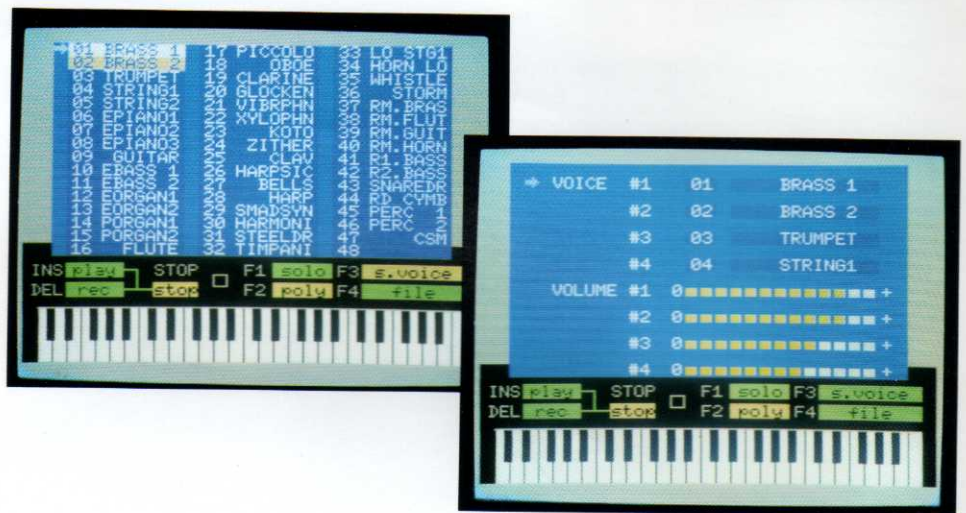
Specifications are subject change without notice.

Yamaha Redefines Music Synthesis

Before the debut of Yamaha's DX Series Digital Programmable Algorithm Synthesizers, the word "synthesizer" most often evoked an image of purely artificial sound, lacking any real similarity to the complex tonal characteristics of acoustic instruments. Yamaha changed that with the DX7, an easy-to-use programmable keyboard synthesizer with astounding sound quality. Today, the Yamaha DX Series is the world's foremost line of FM digital synthesizers, used by performers and composers in every field of music. The Yamaha Music Computer represents an exciting addition to the world of Yamaha music technology: a computer with built-in FM digital synthesis.

The SFG-05 Sound Synthesizer*

The Yamaha Music Computer utilizes sophisticated FM (frequency modulation) digital synthesis to create sound. Each of the four digital sine wave generators (called operators) within the SFG-05 FM Sound Synthesizer has its own envelope generator. These operators are the foundation of FM digital synthesis, and the basis for the Music Computer's incredible sound. The Music Computer combines its operators into arrangements known as "algorithms." These determine the kind of modulation produced and therefore contribute to the timbre, or sound quality, of your programmed voices. Unlike more conventional analog synthesizers, which filter and regulate a fixed harmonic structure, the Yamaha FM tone generation system synthesizes the random harmonic structure found in actual acoustic instruments. This results in a truly remarkable range of level and timbral variations—from accurate acoustic tones to the limits of your imagination. The Yamaha Music Computer, with an SFG-05 FM Sound Synthesizer, offers much more than other so-called computer/music software systems. Simply, it is a high-quality, professional sounding digital synthesis computer.



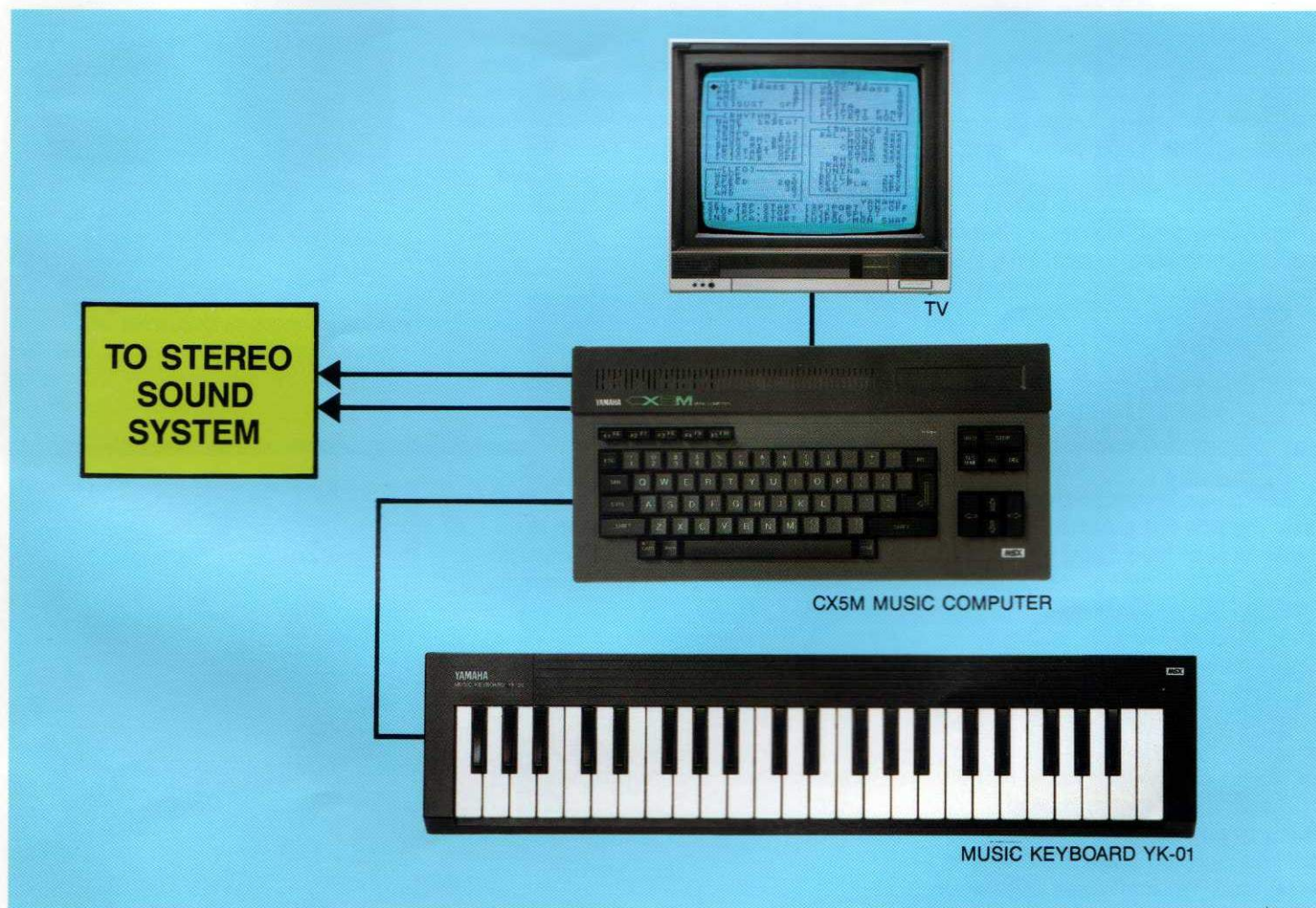
*The SFG-05 is an optional Sound Synthesizer module for the Music Computer. The Music Computer is initially supplied with the SFG-01 Sound Synthesizer.

The Basic Music Computer System

A basic Yamaha Music Computer system consists of the computer with its built-in FM Sound Synthesizer module, a 44-key YK-01 mini keyboard or a full-size 49-key YK-10/YK-20 keyboard, and a video monitor. For sound, you can use a video monitor with a built-in speaker, or plug the stereo line outputs into any audio system or musical instrument amplifier. Naturally, a high-quality sound system will more effectively deliver the full impact of the Yamaha Music Computer's outstanding FM voices. Once you're set up, you're ready to play. The 46 pre-pro-

grammed 8-note polyphonic FM voices are all available, plus a subset of the same voices in monophonic form. The Music Computer offers single, split, and dual keyboard modes. You can play any one of the polyphonic or monophonic voices over the range of the entire keyboard, or split the keyboard at any key and play a monophonic and polyphonic voice on either side of the keyboard. In dual mode, the Yamaha Music Computer allows you to play two preset voices simultaneously, note-for-note over the range of the entire keyboard.

The Music Computer is also great for practice. Simply set it to record digitally direct from your keyboard, and then add chords or solos during playback. It has automatic rhythm and chord functions, so you can play to the accompaniment of drums or backing chords using any of the 46 preset voices. In fact, these carefully selected voices are so lifelike, you may find yourself playing things you thought were possible only on other instruments!



An Expandable Computer System

The basic Yamaha Music Computer system offers musicians at all levels easy access to the wonders of Yamaha music technology. But the advantages inherent in this system are far greater still. The Music Computer accommodates an assortment of peripheral devices, each designed to make your musical projects more enjoyable and fulfilling.

FD-05 Micro Floppy Disk Drive

The FD-05 Micro Floppy Disk Drive is an important addition to the Yamaha Music Computer system. Compact and efficient, it utilizes a 3.5 inch floppy disk for fast access and high capacity storage. Interfacing is simplicity itself. Simply plug the disk drive interface cable into the cartridge slot of your Yamaha Music Computer. The MSX-DISK BASIC language is built into the disk drive interface cartridge, so by plugging in the FD-05 you're ready to proceed with your music. With the addition of the FD-05, the Yamaha Music Computer becomes a powerful music data storage system. With the FD-05, storage capacity is increased

to a massive 720K bytes of data when formatted; a remarkable amount of storage for such a small disk. The FD-05 gives you all the advantages floppy disks provide in data storage and retrieval, including random access to any file on a disk.

In addition, you can connect a second FD-05 drive to the first, which doubles storage capacity and greatly expands utility. The new lineup of Yamaha music software is micro floppy disk-compatible, too, so you can enjoy all the advantages of floppy disk storage.



*A CA-01 Single Cartridge Adaptor must be used to permit the FD-051 Interface Cable to be plugged into the Music Computer's rear slot.

PN-101 Dot Impact Printer

To convert your compositions, voice data, file lists, RX patterns, and other music data to hard copy, Yamaha offers the PN-101 dot-impact printer. The PN-101 is compact, lightweight, and offers the kind of performance you would expect from much larger, more expensive printers.

The PN-101 connects directly to the Music Computer's PRINTER connector via a CB-01 printer cable (CB-02 in U.S. and W. Germany), and is ready to run. There are no interfaces to install, and no custom software to write. Most Yamaha music software in-

corporates printout capability. The FM Music Composer, for example, lets you print out hard copies of musical scores. The DX7 Voicing Program prints out copies of the voice programming parameters in easy-to-read graph and numeric form. The RX Editor gives you hard copies of your rhythm patterns and song programs created for any one of Yamaha's renowned digital rhythm programmers.



MU-01 MSX Mouse

Yamaha's MU-01 MSX Mouse is the fastest, easiest, most enjoyable way to input information into your Music Computer. Just move the Mouse around on any flat surface to direct cursor movement. Additionally, you can write your own software programs for the MU-01. Anyone can use it, and everyone will enjoy the MU-01 MSX Mouse.



Music Keyboards

The Yamaha Music Computer is compatible with a number of music keyboards, including the YK-01 "mini" keyboard. With the addition of the YK-01, your Music Computer becomes a full-fledged performance synthesizer with many features found in our DX Series Digital Programmable Algorithm Synthesizers.

If you want a larger keyboard, choose the YK-10 or YK-20. Both are 49-key full-size models with precise action for quick response and expressive soloing. Just plug into the 20-pin connector on the Music Computer, and you're ready to play.



YK-01



YK-10



YK-20

Yamaha Music Software

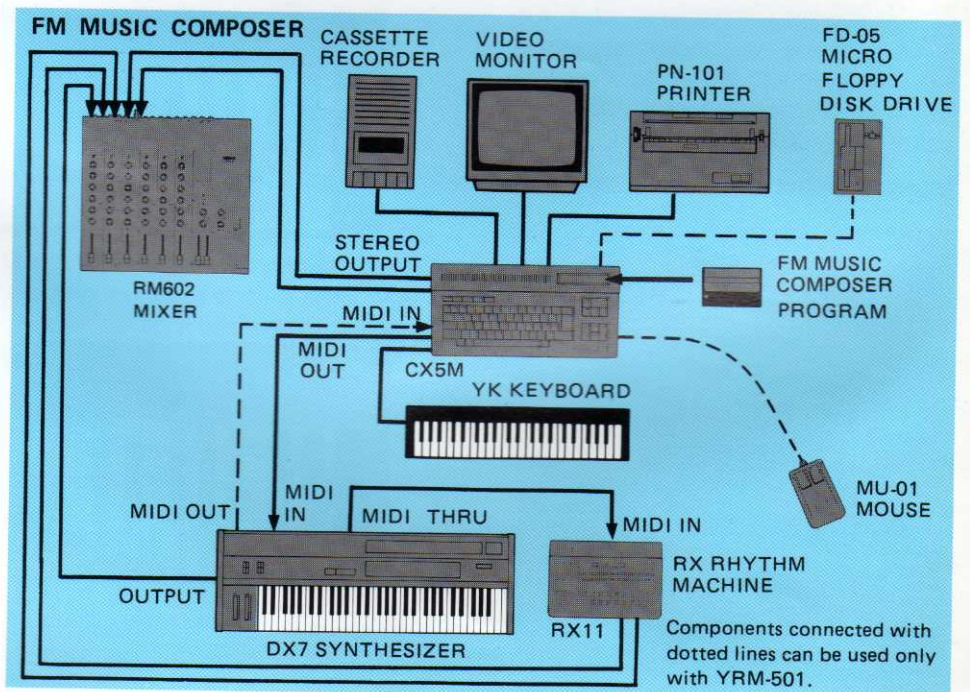
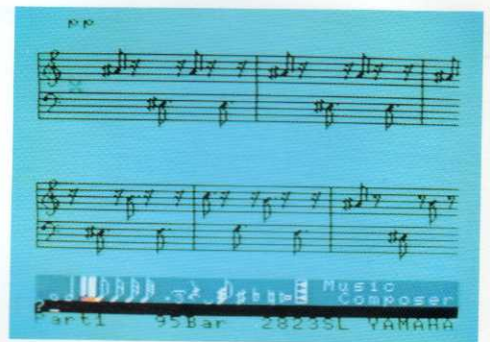
A World at Your Fingertips

With the many MSX music-oriented software packages now available, there is practically no end to what the Yamaha Music Computer can do. The simple insertion of an MSX program into the Music Computer's cartridge slot brings a multitude of valuable tools within your reach. Imagine: a computer that can create entirely new

FM voices, edit voice data for a DX7 synthesizer, assist you in composition, then synchronize and play your music back in flawless detail. The Yamaha Music Computer and its companion software programs are a dream come true for composers, arrangers, and performers.

YRM-101/501 FM Music Composer I and II

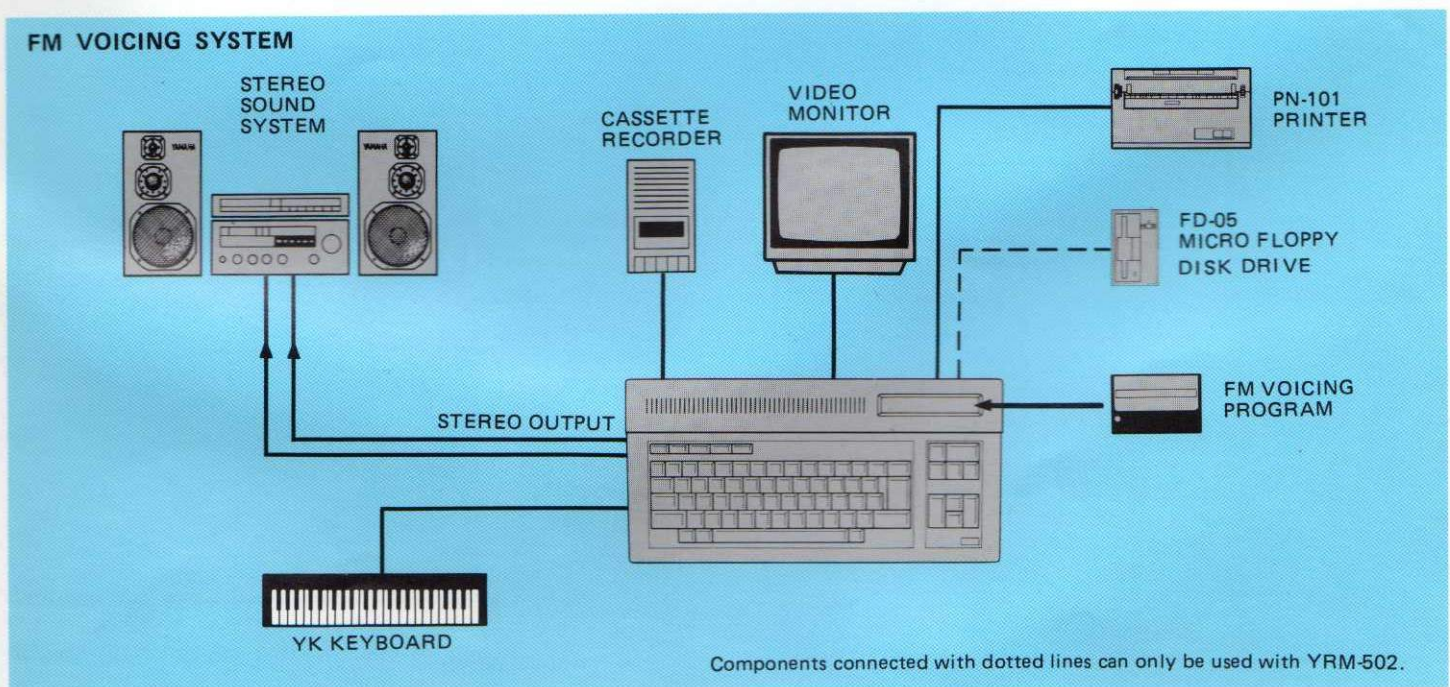
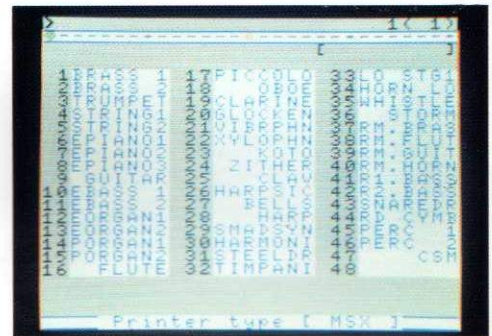
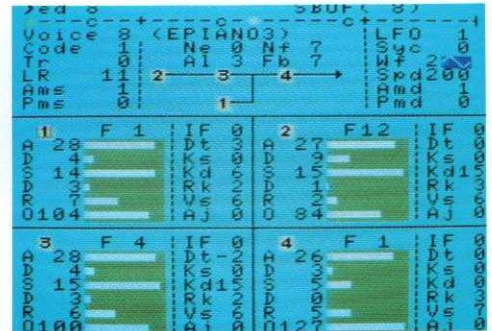
FM Music Composers I and II are sophisticated, versatile, easy-to-use music composition and arrangement software packages. Simply "write" notes on the music staff display from the Yamaha Music Computer, or directly from the music keyboard (a real bonus for musicians). Up to eight separate parts can be entered, and each part can be assigned a different "instrument." You can use the pre-programmed FM voices in the Music Computer, or voices you have programmed yourself. You also have full control over time signature, key signature, tempo, dynamics, and phrasing. You can enter crescendo and decrescendo, accelerando and ritardando, atempo, accents, sforzando, staccato, legato, and fermata commands, as well as a variety of repeats. Further, any parameter—key, tempo, time, and voice assignment—can be changed at any time during a piece. Your compositions can be saved on a standard cassette and reloaded whenever needed. Compositions written on the FM Music Composer can be used to "sequence" MIDI synthesizers, drum machines, etc. via the Music Computer's MIDI interface. The FM Music Computer can be an amazingly useful tool for any composer or arranger.



YRM-102/502 FM Voicing Programs I and II

FM Voicing Programs I and II give you precise control over the Yamaha Music Computer's digital FM voice generator. With them, you can edit and alter the pre-programmed voices, or create your own totally new voices. The FM tone generator employs 4 operators (each with a sophisticated envelope generator) that can be arranged in 8 different algorithms. FM Voicing Programs I and II let you precisely set all parameters relating to the operators and algorithms, along with amplitude and pitch modulation, LFO waveform, keyboard scaling, transposition, etc. With a little practice, you will be able to program just about any voice you can imagine. You can save your original voices on tape using any standard cassette recorder, or on disk using an FD-05 Micro Floppy Disk Drive (Program II), to build an original voice library.

Voices you create can be used when playing the Yamaha Music Computer as a synthesizer, and in arrangements created with the FM Music Composer program.



YRM-103 DX7 Voicing Program

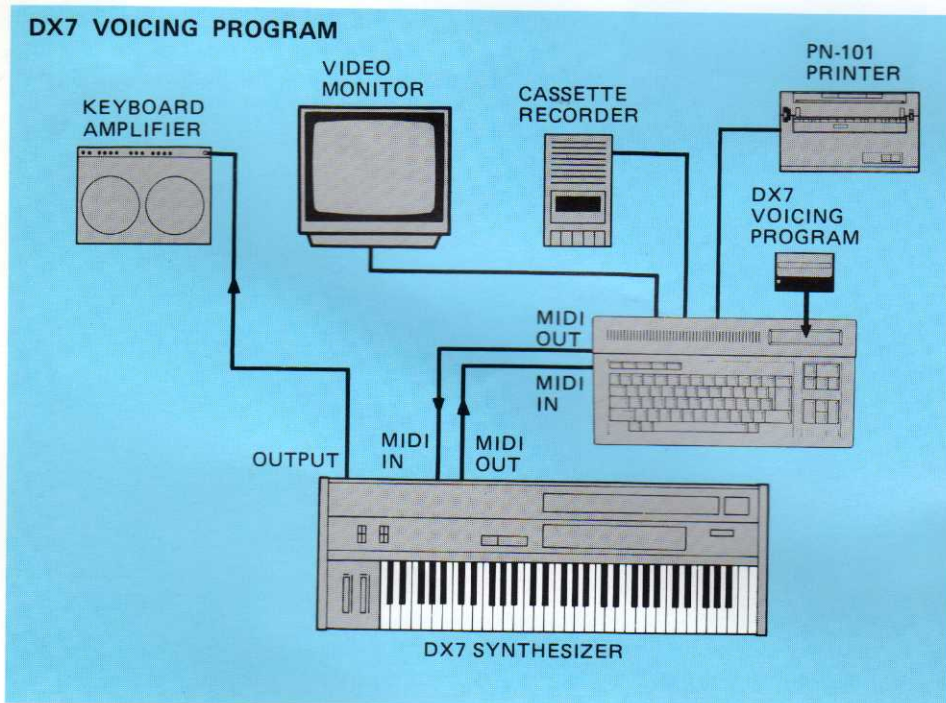
This is the key to easy DX7 voice programming. The DX7 Voicing Program displays all DX7 voice parameters right on your video monitor, and lets you edit them from the Music Computer keyboard. Data is transferred to the DX7 via the built-in MIDI interface, and voice parameters are displayed in easy-to-understand graph form. For example, when programming envelope generator parameters, you can actually see what the programmed envelope curve looks like, rather than having to think entirely in numeric terms. This makes programming the DX7 so easy that even if you're not interested in the Yamaha Music Computer's other capabilities, it's worth having one just to program your DX7.

The YRM-105 DX9 Voicing Program is also available, offering on-screen editing of DX9 voices.



Directory		Midi Gr:01	
01 PIANO 1	17 CLARINET	03	init voice
02 PIANO 2	18 MUTE TPT	04	init voice
03 VIBES	19 GLOCK	05	init voice
04 HARBASS	20 CHIMES	06	init voice
05 TROMBONES	21 BONGS	07	init voice
06 PICCOLO	22 COWBELL	08	init voice
07 HOT SYNTH	23 TIMBALES	09	init voice
08 SYNTH LEAD	24 PIPES	10	init voice
09 GLAV	25 ORGAN 1	11	init voice
10 HARP 1	26 REED 1	12	init voice
11 HARP 2	27 REED 2	13	init voice
12 BANJO	28 STORM	14	init voice
13 JAZZ GUITR	29 EXPLOSION	15	init voice
14 BARREL	30 RAY GUN	16	init voice
15 E BASS	31 WIND BELLS	17	init voice
16 WOOD BASS	32 WHISTLE	18	init voice

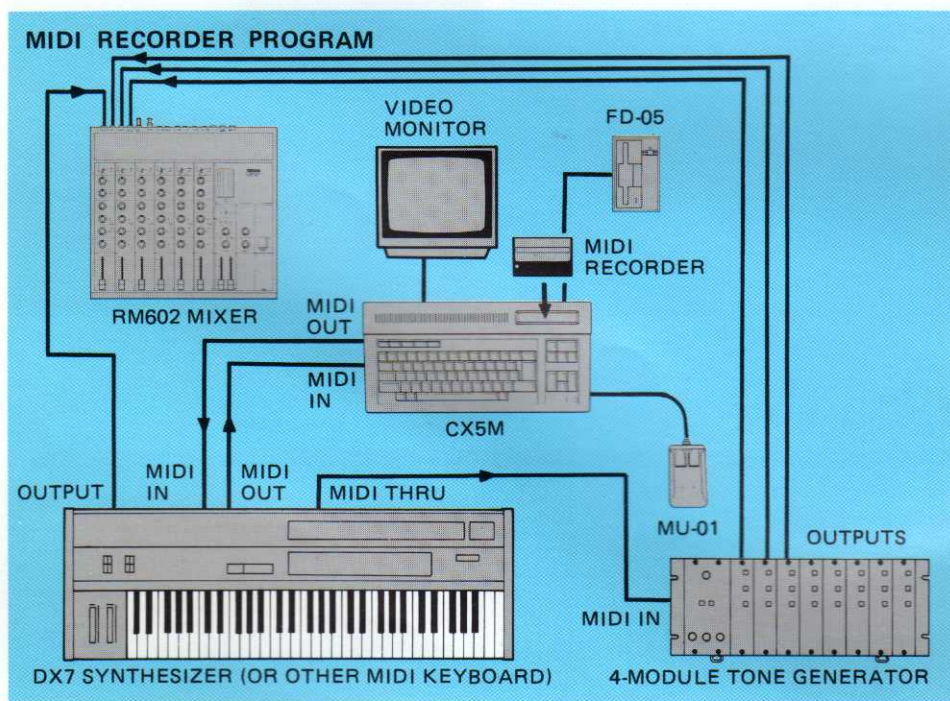
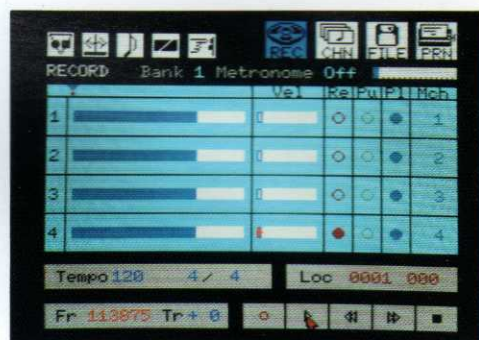
1 Dir Edit 2 Store 3 Cambridge
 4 Recall 5 Play 6 Cassette
 7 Hold/Wait 8 Copy/Save 9 Print
 10 Hard Copy ©YAMAHA 1984



YRM-301 MIDI Recorder Program

The MIDI Recorder Program is simply the most powerful digital MIDI sequence recorder in its class, opening a number of musical avenues to both performers and composers. With this program, you can compose and arrange your music in step-time or real-time via a MIDI keyboard for synchronized playback through DX synthesizers or independent FM tone generators. The MIDI Recorder offers four banks, each containing four recordable tracks. You can record up to four tracks in one bank, or use the MIDI Recorder's track mixing function to mix recorded tracks (just like "ping-ponging" with a multi-track tape recorder), thereby opening up tracks for further recording. Each track can drive

one or more FM tone generators—each individual "part" on a track can be coded with its own MIDI channel number. The MIDI Recorder also offers plenty of sophisticated editing functions so you can correct individual notes without having to re-record an entire track. A special Chain mode lets you play back the MIDI Recorder's banks in any sequence with full control over tempo, transposition, MIDI channels, and other parameters. Your recordings can be stored on tape via the cassette interface or on floppy disk via the FD-05 Micro-Floppy Disk Drive. The MIDI Recorder is also Mouse-compatible, so it's quick and easy to use.

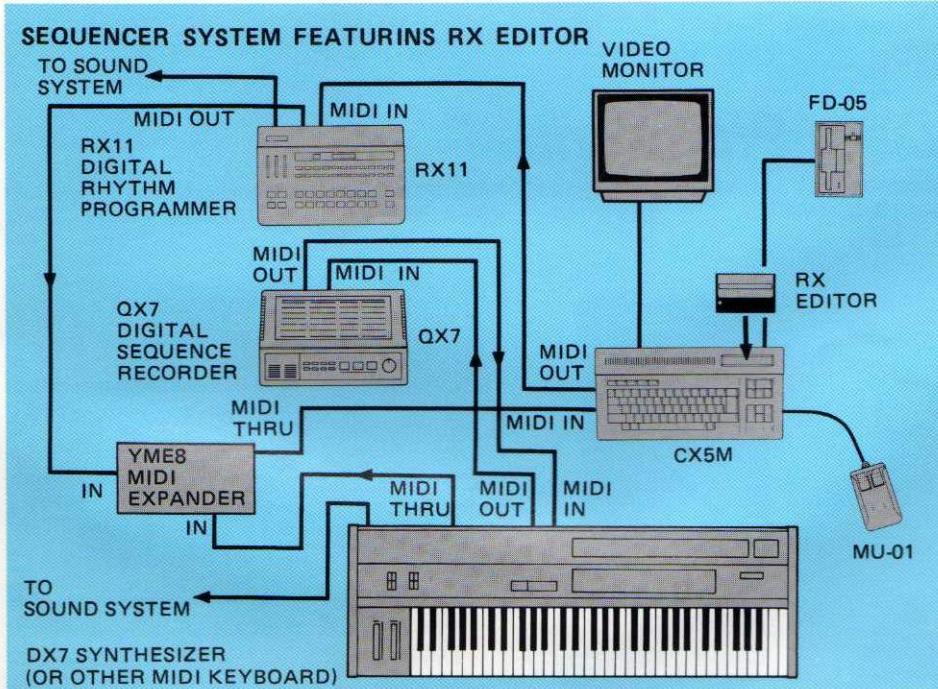


YRM-302 RX Editor

The RX Editor enables the Yamaha Music Computer to program the Yamaha RX11 or RX15 Digital Rhythm Programmer with more ease and versatility than ever before. You get a comprehensive on-screen display of all pattern or song parameters while programming. Yamaha Mouse compatibility makes data entry super-simple. The RX Editor also lets you do a few tricks that the RX15 and RX11 cannot do by themselves: program 8 discrete levels individually for each note, set a different pan position for each note (RX11), and change the timing of individual notes for a natural

rhythmic feel. You can enter information by step input from the Music Computer, or in real-time from the RX11, RX15, or a MIDI keyboard, and view your progress on the monitor screen.

The Yamaha Music Computer facilitates far greater organization of song patterns than was possible before, due to a complete visual display on your monitor. Now you can name each individual "part" of your song and see all parts, repeats, volume changes, etc., at once on the monitor. Of course, patterns and songs can be stored to cassette tape or floppy disk.



Music Foundation Educational Software

Yamaha's world-renowned Music Foundation has developed a set of educational software programs for use exclusively with the Yamaha Music Computer. For those with limited musical experience, or those who wish to broaden their musical horizons, these programs are an excellent way to increase knowledge of music theory and its applications. Keyboard Chord Master demonstrates chord structures

in 27 different variations via a keyboard display on your monitor, and plays them automatically. This MIDI-compatible program enables you to quickly master the fundamentals of chord structures. Keyboard Chord Progression 1 displays chords in broken-down form on your monitor. Each chord progression can be played automatically or step-by-step for easy learning. Guitar Chord Master 1 is ideal for

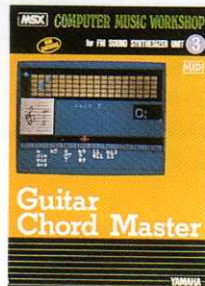
beginning and intermediate guitarists. You get on-screen simulation of guitar chord forms and, by selecting chord names, their constituent notes. A variety of chord forms and inversions can be selected for each chord name. Using a combination of on-screen display and FM-reproduced guitar voices, this program really comes to life.



CMW-31
KEYBOARD
CHORD MASTER



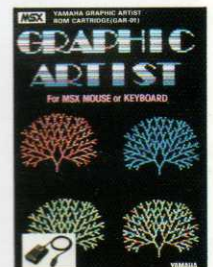
CMW-32
KEYBOARD
CHORD PROGRESSION 1



CMW-33
GUITAR
CHORD MASTER 1



CMP-01
FM AUTO
ARRANGER

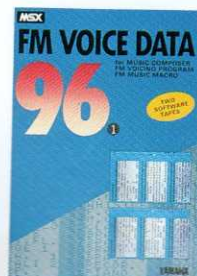


GAR-01
GRAPHIC
ARTIST

Music Foundation Data Programs

These expansion data programs add incredible new voices to your Music Computer's built-in voice bank.

FVD-01 provides a number of vibrant voices that are ideal for the Music Computer and software programs including FM Music Composer, FM Voicing Program, and FM Music Macro. There are four versions, each with a selection of unbelievably realistic acoustic instrument voices. FVD-02 provides an amazing set of synthesizer and sound effects ranging from synthesizer to waves, wind, animals, and outer space. These voices can be a great addition to your Music Computer's voice selection.



FVD-01
FM VOICE
DATA 96-1



FVD-02
FM VOICE
DATA 96-2

MUSIC SOFTWARE PROGRAMS



YRM-101 FM Music Composer



YRM-102 FM Voicing Program



YRM-103 DX7 Voicing Program



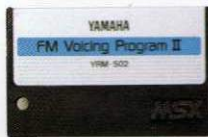
YRM-104 FM Music Macro



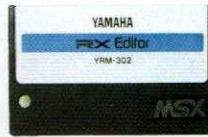
YRM-301 MIDI Recorder Program



YRM-501 FM Music Composer II



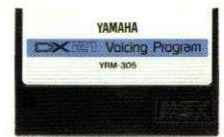
YRM-502 FM Voicing Program II



YRM-302 RX Editor



YRM-504 FM Music Macro II



YRM-305 DX21 Voicing Program

MUSIC COMPUTER PERIPHERALS



SFG-05 FM Sound Synthesizer Unit



FD-05 Micro Floppy Disk Drive



FD-051 Disk Drive Interface Cable



FD-052 Expansion cable



YK-01 Music Keyboard



MF2DD Floppy Disk



MU-01 MSX Mouse



UDC-01 Data Memory Cartridge



YK-10 Music Keyboard



CA-01 Single Cartridge Adaptor



PN-101 Dot Impact Printer

CB-01/02 Printer Cable

PN-101 PF Pinfeed Unit

PN-101 RB Printer Ribbon



YK-20 Music Keyboard