

## MUSIC CONSTRUCTION **SET**™ REFERENCE CARD

### GETTING STARTED

Put the disk in the drive and turn the computer on. When the Music Construction Set screen appears, press Enter to "raise the curtain" on the musical staffs so you can begin using the program.

If you wait instead of pressing Enter, the program will soon enter the Demo mode in which it will automatically play most of the songs listed below. Press the space bar to stop one song and go to the next. Press Enter to leave the demo mode so you can begin using the program. See below for additional instructions.

### MCS DISK MUSICAL TABLE OF CONTENTS

FILENAME	(Actual name and composer)
SCHERZO	(Scherzo from Midsummer Nights Dream by Felix Mendelsohn)
CANON	(Canon in D Major by Johannes Pachelbel)
BUMBLE	(Flight of the Bumblebee by Rimsky-Korsakov)
INVENT	(Two Part Invention No. 8 by J.S. Bach)
DAISY	(Traditional)
ALLEGRO	(Sonata in D Major, First Movement by W. A. Mozart)
TURKEY	(Traditional)
RACKET	(Racket by Douglas Fulton)
PAT	(Pat the Hat by Douglas Fulton)
TEARS	(Tears on My IBM by Douglas Fulton)
SPINNING	(Spinning by David Porter)
NEW	(Load this whenever you are constructing music and want to erase what you have done and start over.)

Music adapted and arranged by Douglas Fulton.

Also on the disk are the following selections referred to in the manual: MYSTERY MELODIES (page 5), BUGGY (page 6), RHYTHM (page 7), and SCALES (page 10).



### CONTROLLING THE PROGRAM

Your primary music construction tool is an on-screen picture of a hand. When you start a session with the program, the hand will appear in the lower right portion of the screen, pointing at a picture of a plug. Press Enter to turn the plug icon on so you can tell the program how you want to control the hand, how you want the music played and what printer you want to use to print copies of the music you create.

With the plug icon on, press the space bar to produce different options in the lower left corner of the screen. Press Enter to select the option which appears and move on to the next option set. (If only one option is available for a set on your machine, pressing the space bar will do nothing.) When you've selected from the last set of choices (printers), the plug icon will automatically be turned off, and you may begin using the hand to build and play music. Here are the choices:

**1. Keyboard, joystick, etc.** - The program automatically starts out each time in keyboard mode. The cursor keys move the hand; pointing at an object in the parts box and pressing Enter picks the object up; pressing Enter again drops it. Pointing at icons and pressing Enter turns them on, pressing Enter again turns them off. Pointing inside the speed, sound and volume gauges and pressing Enter clicks the gauge marker toward the hand. If you select the joystick or Koalapad options, you may control the hand with your pointing device and use the first button in place of the Enter key. When you select the Joystick option, a No Calibration option will appear. If you want to calibrate your joystick (something you should do the first time you use the program), press the Space Bar to produce the Calibration option, then press Enter to select it and follow the instructions as they appear on the screen.

**2. Speaker-4 Notes, etc.** - The number of notes Music Construction Set can play at once and whether the music will scroll as it plays depends on your equipment and the choice you make in this option set. The program takes advantage of the three voice sound capability in a PCjr or Tandy 1000 to simultaneously play and scroll music containing chords of up to three notes. On other PC's, only one note can be played at a time for scrolling music. Four voice non-scrolling music is available on all machines. If your computer has a cassette port, you may use it to send 4 voice music through the line-in jacks on your stereo.

If you have a PCjr or a Tandy 1000 and only want to play the top line of notes in a song, select 1 Note, Scroll with Enter or your pointing device button. If you want to play the second line of notes, select 1 Note, Scroll by pressing 2 on the keyboard, and if you want to play the third line, select it by pressing 3.

**3. Printers** - The program has been tested with the following: IBM Graphics Printer; Epson MX80 and FX80; Okidata 92,93,82,83, and 2410; Tandy DMP430 and 2100P (choose IBM Graphics mode, make sure switches 1 and 2 are on in Bank A and all switches are off in Bank B); Gemini 10X (use the Epson series setting).

To print, make sure your printer is on and press Control-P. The music will print vertically down the left side of the page. Press Enter to stop printing.



## TO PLAY MUSIC

To play a piece of music you've constructed or loaded, turn on the Piano. If the music scrolls, the **notes** will sound when they pass through the area above the small triangular play head (located just above the whole note in the parts box). If you want to skip ahead or go back to hear a passage again, use the Arrow icons on either side of the Piano to scroll backwards and forwards through the piece. Turning on Home (just below the Piano) sends you back to the piece's beginning.

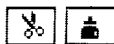


## LOADING AND SAVING MUSIC

To load music into memory, make sure the disk containing the music you want is in the drive you want to use and turn on the disk icon. Then type L followed by a space and the name of the piece (L **Canon**, for instance, to load the Pachelbel Canon which is on your MCS disk.) Next, press Enter and then press it again. If you have a second drive and want to load a piece from a disk in that drive, type **B:** before the piece name (L **B:Canon**, for instance).

Saving music works the same way. Make sure the disk you want to save to is in the drive you want to use, then type S followed by the name you want to give to the piece. Names may be up to 8 characters long. If you don't add a dot and a three letter extension, the program will add .mcs for you. If you add the extension .mcd, the piece will be played automatically, along with any others on the disk which have that extension, whenever you turn on the disk icon and select the Demo command.

To see the other commands available to you through the disk icon, type **HELP** (or **H**). Use the Format command listed there to prepare blank disks to save your pieces on, use the Catalog or Dir commands to get a list of the pieces on the disk, and use Erase to get rid of pieces you no longer want. You may save up to 64 pieces on a disk.



## CUT AND PASTE

Turn on the scissors, place them over a measure and press the number key on the keyboard for the number of measures you want to cut. Pressing 3 for example will cut out the measure you're on and the next two measures to the right of it. If you try to cut a group of measures with more notes than the Cut and Paste buffer can handle, you'll hear a beep and the command will not be executed.

You can also cut more than one measure by pointing first to the first measure in the group and pressing the space bar (or the second joystick button), and then to the last one and pressing the space bar again. With this method you may cut any number of measures so long as they don't contain more than a total of approximately 900 symbols.

To paste down a copy of the last group of measures you cut, turn on the paste pot, then place it over the measure you'd like the group inserted in front of and press Enter (or the first joystick button). Whatever is cut remains in the buffer ready for pasting until you cut something else or turn the computer off.



## SPEED, VOLUME AND SOUND CONTROLS

The five gauges in the center let you control playback speed, volume and sound quality by using the hand to move the gauge markers up and down. For volume (Vo) and Sound (So), the left gauge controls

the top staff and the right one the bottom. For volume, the higher the gauge marker, the louder the music. The sound and volume controls work only if you are using a PCjr.

There are 13 different sound quality settings available on the PCjr. They are arranged in four groups: (1) The first three settings present the same sound first as a smooth tone, then with vibrato and then with more vibrato. (2) The next four offer a piano-like sound; each setting causes the notes to sound longer than the setting just above it. (3) The last two groups of 3 each are for special effects.

Experiment with mixing the sounds until you find the settings that make the piece sound the way you want. For some tips, load the pieces that came on your MCS disk and study the settings used for each one.



## THE TIME SIGNATURE CONTROL AND BEAT COUNTER

Setting the Time Signature sets the playback scrolling speed to match the meter a piece is written in. The beat counter (next to the scissors icon) counts along as the music plays. If it finds a measure with too many or too few beats, it changes to inverse video. These features work only if you've selected an option in which the music scrolls when it plays.

### Note C

## THE NOTE INDICATOR

Point at a note (or space or line) and press P; the appropriate tone will sound and its name will appear in the indicator. To make the Note Indicator automatically sound a new tone and produce a new letter whenever you point at a new line or space, press **Control - S**. Pressing **Control - S** again returns the Note Indicator to manual control (i.e. you have to press P to make it work). When placing notes in the area above and below the staff lines, press P to produce a helpful line segment.

### Key C

## TO TRANSPOSE PIECES INTO ANOTHER KEY

Pointing at the word KEY and pressing the pointing device button (or ENTER) causes key names to scroll by. Pressing the button (or ENTER again) picks whichever name is visible, and the computer rewrites the music to fit the new key. If you try to transpose to a key too high or low you'll hear a warning beep and the command will not be carried out. Inverse video means you're moving down the scale from your starting point; regular video, that you're moving up. Note: If you enter a key signature manually (by dragging on sharps or flats one at a time), the Key Change Control will no longer show the correct key signature.

## KEYBOARD SHORTCUTS

As you gain experience with your MCS program, you'll find the keyboard helpful even in Joystick and Koala modes: Pointing where you'd like a note, rest, clef, etc. to be and pressing the appropriate key will cause it to be done.

1 through 5 - 16th notes through whole notes	S - sharp
6 through 0 - 16th rests through whole rests	F - flat
K and L - 32nd note and 32nd rest (available only through the keyboard)	N - natural
T - treble clef	<b>D-dot</b>
B - bass clef	I - <b>tie</b>
	O - octave raiser

**ESC or backspace** - erases whatever's being pointed at or held.

**Space bar or the second joystick button** - puts down another of whatever you put down last.

U - turns the note or tie you're carrying upside down.

= - scrolls forward one measure.

- - scrolls backward one measure.

cursor keys - move hand one notch up, down and sideways.

H - sends the hand Home.

• - sends the hand to the staff area.

Q - sends the hand to the quarter rest in the parts collection.

P - causes the Note Indicator to function.

**Control-S -toggles** the Note Indicator between manual and automatic.

**Control-P** - begins printing.

ENTER - stops printing.

## IF YOU HEAR A BEEP

If you hear a beep when you try a command, one of the following is most likely happening:

1. You're trying to put in a longer piece of music than the program can handle (Please disregard the note about capacity on page 12 of the manual. In the IBM version of the product, pieces may contain up to approximately 18,000 symbols, and even more if your machine has more than 128K of memory.)
2. You're trying to cut more music into the buffer than it can handle. (Please disregard the note about Cut and Paste capacity on page 4 of the manual. Refer instead to the Cut and Paste section on this card.)
3. You're trying to put a note on top of a note.
4. You're trying to change to a key that would make some of the notes in your piece either too high or too low for the MCS range.
5. You're trying to use the Change Key Command on a song which has different key signatures in treble and bass clefs or which has some other symbol placed among the accidentals to the left of the double bar. Don't put anything to the left of the double bar except sharps, flats, clefs and octave raisers.
6. You're trying to use the scissors to the left of the double bar. They won't work there.

## LIMITED WARRANTY

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Defective media should be returned to:

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South San Francisco, CA 94080

in protective packaging, accompanied by (1) proof of purchase, (2) a brief statement describing the defect, (3) a \$7.50 check (if beyond the initial ninety-day warranty period), and (4) your return address.

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