











Congratulations on purchasing the Computer Music Station CMS-61 and welcome to the world of FATAR Keyboard Controllers.

The CMS-61 is the perfect choice of the musician looking for a simple yet versatile keyboard controller to produce quality results in the multi-media environment.

The CMS-61 is the only keyboard controller on the market today to accomodate a computer keyboard and mouse pad within the same product.

TECHNICAL

CHARACTERISTICS • 61 unweighted keys

- One zone
- Velocity Sensitive
- Pitch Bend Wheel and Programmable Wheel
- Two Parallel MIDI Outputs
- Sustain Input Jack
- Volume Input Jack
- Program change, MIDI Channel, Transpose, Programmable wheel (Volume, Pan, Aftertouch, Pitch, Modulation) etc.
- External Adapter 9V DC 500ma included

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• Dimensions: 51 3/4" X 13 3/4" X 4 1/2" 48 Ibs.

CONNECTIONS

- 1. Connect the AC/DC adapter cable to the power input jack, in the back of the controller, located next to the power switch.
- 2. Make sure that the AC/DC adapter corresponds to the correct voltage output. The CMS 61 will accept an adapter that has a rating of 9V DC with a positive polarity tip and has a minimum current of 200 mA.
- 3. Connect MIDI cable from the CMS 61 MIDI outputs, (each output can handle up to four synthesizers, modules, or effect devices) to the MIDI input on your sound sources. Set your sound sources to the desired MIDI channelsby the CMS - 61. Each channel would normally be assigned to a different sound or effect. Since the CMS - 61 has only one zone, you can only program one of the 16 channels at a time. Make sure that your sound source is properly assigned to the channel you are sending on.
- 4. To select a base channel hold the [CHANNEL] switch and enter the channel number (1 through 16) by depressing the appropriate black numbered key (0-9). The function switch must be released after the black number keys. At this point the CMS - 61 is sending on that channel.

PROGRAM

CHANGE A program change command allows you to change the sound on your sound source from the CMS - 61. The program change will be sent on whichever MIDI channel the CMS - 61 is currently set. Program changes are numbered 1 through 128. You may notice, depending on the sound source, that a program change of 1 will show up on your sound source as 0. This is not a problem, since MIDI is not completely standard between manufacturers. Thank the heavens that there are only a few anomalies like this between the manufacturers.

To issue a program change, hold the [PROGRAM] switch and enter the desired number on the numbered black keys with the appropriate program number or use the [INC]/ [DEC] (increment/ decrement) keys. If a number greater than 128 is entered, it will wrap around to the beginning.

Compositer Martin

BANK CHANGE

Some sound sources today, especially found on computer sound cards, have a feature called bank select. The MIDI specification calls for bank numbers 1 through 16384. Once you have selected your bank you are able to select a program change (1 through 128).

To select a bank of programs, hold the [PROGRAM]switch, press [BANK] key, and enter the appropriate bank number using the 0 through 9 keys. The bank command will be transmitted when the [PROGRAM] switch is

released. The [INC]/ [DEC] keys may be used instead of entering the bank number.

CONTROL# COMMANDS

There are 127 controller functions that are made up of continuous and switch control commands. See Figure # 3. The most commonly used controllers are aftertouch, pitch, modulation, volume and pan. Many expensive keyboard controllers offer aftertouch, which allows expressive control of sound sources. The CMS - 61 allows the same expression via [WHEEL A]. Aftertouch, pitch, (1 through 16). Refer to the sound source s owners manual for this procedure.

Connect a momentary footswitch, which circuit is normally open, to the sustain input jack clearly marked SUSTAIN located next to the MIDI jacks. We recommend a VFP-1/10 (piano-like sustain pedal) available from Music Industries Corp.

Connect a control voltage pedal for volume in the jack clearly marked VOLUME located next to the sustain jack. We recommend a VP-26 (expression pedal) available from Music Industries Corp.

Once all connections are in place, press the power switch to the ON position.

TOP PANEL

See Figure #2. You will notice on the left a dedicated pitch and a programmable second wheel, marked [WHEEL A]. With [WHEEL A] you may assign aftertouch, pitch, modulation, volume and pan as well as any controller (0 -127).

To the right of the wheels there are four switches. These switches are used for program change, channel assignment, transposition and programmable wheel assignment. Eighteen black keys on the keyboard are used for special MIDI functions. The first five are used for [WHEEL A]. Notice, [AFT], [PITCH], [MOD], [VOL] and [PAN]. These keys represent aftertouch, pitch, modulation, volume and panning. The next 10 black keys represent a numeric key pad for program changes and channel assignments. The following two black keys are used for increment and decrement of a program change. [INC]/[DEC] will also change the controller number. The last key is used for selecting a bank. More on this in the next section.

Operation:

Getting around the CMS - 61 is very simple. However, you must know certain basic MIDI theory before it can make sense.

BASE CHANNEL

There are 16 different channels in the MIDI specification that can be accessed modulation, volume and pan can be accessed by the corresponding black keys, ,while all the remaining control functions can be accessed by the number or [INC]/[DEC] keys.

FATAR CMS 61

To assign the programmable wheel press and hold the Control # switch. Enter the desired controller number on the numbered black keys, or use the [INC] / [DEC] keys, then release the control # switch. Look at the list in try them out. If you are having problems, chances are the sound source does not have that feature. Sometimes you might get undesirable results. At this point it might be best to reset your sound source (see sound sources owners manual) and shut off the **CMS - 61**, then turn it back on again. This will reset the **CMS - 61** to base channel #1, the control wheel to modulation and no transposition.

CONTROLLER NUMBER

CONTROLLER NUMBER	CONTROLLER FUNCTION	CONTROLLER NUMBER	CONTROLLER FUNCTION
0	Bank	67	Soft Pedal
ů 1	Modulation	68	Undefined
2	Breath controller	69	Hold 2
3	Undefined	70-7	Undefined
<i>4</i>	Foot controller	80	Gen'l Purpose #1
5	Portamento rate	81	Gen'l Purpose #2
Ğ	DataEntryMSB	82	Gen'l Purpose #3
3 4 5 6 7	Volume	83	Gen'l Purpose #4
8	Balance	84-91	Undefined
9	Undefined	92	Tremolo Depth
10	Pan	93	Chorus Depth
11	Expression	94	Detune
12-15	Undefined	95	Phaser Depth
16	Gen'l Purpose #\	96	Data increment
17	Gen'l Purpose #2	97	Data decrement
18	Genii Purpose #3	98 • 121	Undefined
19	Gen'l Purpose #4	122	Local control On/Off
20-31	Undefined	123	All Notes Off
32	Bank	124	OmniOff
33-63	Least significant byte for	values O to 31 125	Omni On
64	Sustain (damper)	126	Mono On-Poly Off
65	Portamento On/ Off	127	Poly On - Mono Off
66	Sostenuto		

Refer to a MIDI technical handbook for further information on these controller functions.

TRANSPOSITION

Sometimes a player may not be able to play in a certain key. At these times the [TRANSPOSE] switch will be invaluable. For example, if you need to change from the key of C major to the key of Eb major, you can still play the C major keys, but what you hear would be Eb major.

To transpose the keyboard, hold the [TRANSPOSE] switch and press the desired key on the keyboard above or below middle C. The result will be a new key change when the C major keys are played. Your range is limited to 24 half steps up and 24 half steps down.

If there are any technical problems that relate to the CMS - 61 only, please contact Music Industries Corp. 800-431-6699. Best of luck!!!