

## SPECIAL ANNOUNCEMENT!

 997-845924-981  
 February 1, 1983

All Memorymoogs now include a cassette of factory programs. This cassette is included in the white envelope along with your schematics, warranty card and service center list.

Page 6 - Under Section 1.9 (Arpeggiator), the following modes should be added:

- 7) Plays all notes simultaneously.
- 8) Plays back notes in order they are played, first-to-last-to-first.
- 9) Plays back notes in order they are played, first-to-last-to-first (latched).

Page 9 - Prefix C8, second line replace "powers up" with "was shipped".

Page 18 - Security Code - In the first paragraph, ninth line, add the phrase "followed by ENTER" after "the existing code".

Page 19 - A/B comparisons - In the third paragraph, the sixth line states that hitting the RECORD INTERLOCK switch will bring back the edited program, hit the ENTER instead. In the fourth paragraph, the fourth line says to use the RECORD INTERLOCK switch to go back and forth between the recorded program and the edited program. Again, to do this, use the ENTER switch.

Pages 48, 41, 42 - The line drawings show connections being made to the side of the 1128 Footpedal Controller. The connections should be made to the front of the Controller, as shown in the photograph on Page 48.

Page 46 - The diagram labeled "Contour Oscillator 3 Modulation" suggests that the Oscillator 3 amount control is used for contoured voice modulation, turn up the Filter Contour pot (be sure the CONTOURED OSC. 3 AMT. switch is on).

Page 58 - Your Memorymoog is programmed at the factory with 100 presets, program chains, etc. However, the Revision 6 factory preset tape mentioned above has a slight difference in the program chains. If this tape is loaded into the Memorymoog, update it as follows in order that the program chains correspond to those detailed on page 58:

- 1) Hit the "D" button. The alpha display will show "P".
- 2) Hit the "D" button again. The alpha display will show "L".
- 3) Hit 1, then "ENTER". The alpha display will show "L 1" and the program display will show "58".
- 4) Hit 1, then "ENTER" again. The program display will show "1".
- 5) Hit "A", the advance button repeatedly, until the program display shows "91".
- 6) Hit the "D" button to stop loading Program Chain 1.

All the program chains will now agree with the page 58 owner's manual information.

VENTILATION CLEARANCE - The Memorymoog has a built-in fan that exhausts hot air from the instrument. For optimum tuning stability, be sure that this fan is not obstructed in any way i.e., do not operate the Memorymoog if it is sitting on deep pile shag carpeting. Also, always make sure that the instrument is firmly seated on all four "feet"; if it rests on a board or surface that is too narrow, the board or surface may be flush against the fan outlet and heat may not be able to escape the instrument, resulting in tuning instability.

BEAT RATES - Several of the Memorymoog's factory program (such as numbers 13, 19, 35 and 47) incorporate a certain amount of detuning as an integral part of the sound. Tolerance variance from instrument to instrument can change these beat rates slightly. If they sound incorrect, adjust the frequency controls for Osc. 2 and/or Osc. 3. When the voice sounds right, store the new frequency setting as part of the program.



MUSIC INC.  
2500 Walden Avenue  
Buffalo, NY 14225

Phone (716) 681-7200

## MEMORYMOOG OWNER'S MANUAL ADDENDA

Pg. 6 - Under Section 1.9 (Arpeggiator), the following modes should be added:

- 7) Plays all notes simultaneously
- 8) Plays back notes in order they are played, first-to-last
- 9) Plays back notes in order they are played, first-to-last (latched)

Ppg. 40, 41, 42 - The line drawings show connections being made to the side of the 1120 Footpedal Controller. The connections should be made to the front of the Controller, as shown in the photograph on Page 48.

Pg. 46 - The diagram labelled "Contoured Oscillator 3 Modulation" suggests that the Oscillator 3 amount control is used for contoured voice modulation. This is incorrect; for contoured voice modulation, turn up the Filter Contour pot (be sure the CONTOURED OSC 3 AMT switch is on).

VENTILATION CLEARANCE - The Memorymoog has a built-in cooling fan that exhausts hot air from the instrument. For optimum tuning stability, be sure that this fan is not obstructed in any way; i.e., do not operate the Memorymoog if it is sitting on deep-pile shag carpeting. Also, always make sure that the instrument is firmly seated on all four "feet"; if it rests on a board or surface that is too narrow, the board or surface may be flush against the fan outlet and heat may not be able to escape the instrument, resulting in tuning instability.

November 30, 1982

## CASSETTE HINTS

### GENERAL

You are encouraged to safely store the factory cassette provided in this manual as a "master" cassette and make a "backup" copy as soon as possible. Follow the procedures outlined in this addenda and on page 22 of the owner's manual.

The factory cassette tape has been custom-made to match your instrument. The following programs and parameters have been adjusted, SAVED and VERIFIED before inclusion on your cassette:

PROGRAM 3 MODULATION AMOUNT SET TO TASTE.  
PROGRAM 4 FREQUENCY 3,HI A,LHC=0', SET FOR PERFECT FIFTH.  
PROGRAM 10 MODULATION AMOUNT SET FOR ONE OCTAVE.  
PROGRAM 36 MODULATION AMOUNT SET TO TASTE.  
PROGRAM 44 FREQUENCY 3,HI A,LHC=0', SET FOR PERFECT FIFTH.  
PROGRAM 76 MODULATION AMOUNT SET FOR PERFECT FIFTH.

The Memorymoog rear panel TO TAPE jack is used for cassette functions but, in addition, it is connected as an internal keyboard decoding line. Connect it to an amplifier and try listening to the TO TAPE jack output and notice the low pitched "buzzing" sound. This "buzzing" MUST NOT be allowed to be recorded on cassette during a CASSETTE SAVE function as it will cause erroneous data to be recorded. Next, continue listening and simulate a cassette save by following the program CASSETTE SAVE section below and note the change in the sound before, during and after the cassette save routine.

### PAUSE vs REMOTE.

If your cassette recorder does not have a motor remote start/stop jack, the PAUSE button must be used instead for the reason mentioned above. The cassette recorder must be set up for recording (or playback) AND the PAUSE button engaged. The PAUSE should be disengaged only AFTER the corresponding switches have been actuated on the Memorymoog.

### SIGNAL LEVEL

If your cassette player has a VU meter, the recording level must be set "INTO THE RED" for best results, for example, +6 on the VU meter.

### TAPE COUNTER

The use of a tape counter is not necessary if ONLY ONE "set" of programs (or sequences) is saved on each side of a cassette. However, when MULTIPLE "sets" of programs (and/or sequences) are to be saved on one side of a cassette, a tape counter is very advisable in order to "find" a particular "set" of programs (or sequences) for later use.

Another tape counter benefit provides accurate starting of a cassette. For example, if you SAVE the FIRST "set" of programs (or sequences) at "10" on the tape counter, this will eliminate the possibility of a "NO DATA" indication as noted in the cassette troubleshooting section below.

When using a tape counter, try saving the programs at intervals of "20" and sequences at intervals of "30". A typical format for one side of a cassette might be: Set 1 (10), SEQ1 (30), SEQ2 (60), SEQ3 (90), Set 2 (120), SEQ4, (140), etc. Use names that make sense to YOU and be sure to write them down.

Essentially any cassette recorder may be used with the Memorymoog with the exception of the SONY SUPERSCOPE, which will not properly RECORD Memorymoog data.

#### CASSETTE SAVE BELOW S/N 3000 WITHOUT SEQUENCER.

Prepare the cassette recorder for recording. Hit C,1,ENTER on the Memorymoog. See "PAUSE vs. REMOTE" above. The small display will show "C,SAVE", and then blank out. After approximately 41 seconds the small display will indicate "SAVED".

#### CASSETTE SAVE ABOVE S/N 3000 OR UNITS WITH A SEQUENCER.

Prepare the cassette recorder for recording. Hit C,1,ENTER on the Memorymoog. The small display will indicate "C SAVE", then "B IF SEQ".

To SAVE PROGRAMS, hit ENTER. See "PAUSE vs. REMOTE" above. The small display will indicate "PROGRAMS" and then blank out. After approximately 41 seconds the small display will indicate "SAVED".

To save SEQUENCES, hit B. See "PAUSE vs. REMOTE" above. The small display will then indicate "SEQUENCE" and blank out. After approximately 65 seconds the small display will indicate "SAVED".

#### VERIFY YOUR CASSETTE SAVE!

After saving programs (or sequences) to tape, VERIFY your cassette save. Verifying a cassette simply checks the cassette to insure that the data has been saved properly. It does not affect anything which is currently stored in the Memorymoog. If "ERROR" occurs during verification nothing in the Memorymoog has changed. If, however, "ERROR" occurs during a cassette LOAD, the current programs (or sequences) may have been erased or altered. Therefore, always VERIFY a cassette immediately after a SAVE to insure proper information has been stored on the cassette.

#### CASSETTE VERIFY BELOW S/N 3000 WITHOUT SEQUENCER

Rewind the tape and prepare the cassette recorder for playback. Hit C,3,ENTER on the Memorymoog. See "PAUSE vs. REMOTE" above. The small display will show "C VERIFY", blank out and the large display will flash briefly. After approximately 41 seconds the small display should indicate "VERIFIED". If not, see the cassette troubleshooting section below.

#### CASSETTE VERIFY ABOVE S/N 3000 OR UNITS WITH SEQUENCER

Rewind the tape and prepare the cassette recorder for playback. Hit C,3,ENTER on the Memorymoog. The small display will indicate "C VERIFY" then "B IF SEQ".

Hit ENTER to verify PROGRAMS. See "PAUSE vs. REMOTE" above. The small display will indicate "PROGRAMS" and then blank out and the large display will flash briefly. After approximately 41 seconds, the small display will indicate "VERIFIED". If not, see cassette troubleshooting below.

Hit B to verify SEQUENCES. See "PAUSE vs. REMOTE" above. The small display will indicate "SEQUENCE" then blank out and the large display will flash briefly. After approximately 65 seconds, the small display will indicate "VERIFIED". If not, see the cassette troubleshooting section below.

#### CASSETTE LOAD BELOW S/N 3000 WITHOUT SEQUENCER

Rewind the tape and prepare recorder for playback. Hit C,2,ENTER on the Memorymoog. See "PAUSE vs. REMOTE" above. The small display will indicate "C LOAD" and then blank out. After approximately 41 seconds, the small display will indicate "LOADED". If not, see the cassette troubleshooting section below.

#### CASSETTE LOAD ABOVE S/N 3000 OR UNITS WITH SEQUENCER

Rewind tape and prepare the cassette recorder for playback. Hit C,2,ENTER on the Memorymoog. The small display will indicate "C LOAD" then "B IF SEQ".

Hit ENTER to LOAD PROGRAMS. See "PAUSE vs. REMOTE" above. The small display will indicate "PROGRAMS" then blank out. After approximately 41 seconds the small display will indicate "LOADED". If not, see cassette troubleshooting below.

Hit B to LOAD SEQUENCES. See "PAUSE vs. REMOTE" above. The small display will indicate "SEQUENCER" then blank out. After approximately 65 seconds the small display will indicate "LOADED". If not see the cassette troubleshooting section below.

#### CASSETTE TROUBLESHOOTING

##### DIGITAL RECORDED SOUNDS

Cassette data format for programs is 11 seconds of "clean" high-pitched sound (tone leader), followed by 30 seconds of "distorted" high-pitched sounds (program and program chain data). SEQUENCES have 11 seconds of "clean" high-pitched sound (tone leader), followed by 54 seconds of "distorted" high-pitched sounds (Sequencer data).

##### "NO DATA" PROMPT

Most cassettes have a short plastic leader at the beginning of the tape. Obviously a signal cannot be recorded on this plastic leader. Therefore, the Memorymoog will usually display "NO DATA", if the tape was rewound to the beginning of the tape. Simply re-enter the Memorymoog switch combination to VERIFY (or LOAD) a cassette if you are using the cassette REMOTE function. If you are using the cassette recorder's PAUSE feature, engage PAUSE as soon as "NO DATA" is displayed, re-enter the switch combination to VERIFY (or LOAD) the cassette and then disengage the PAUSE as noted in the "PAUSE vs REMOTE" section above. If "NO DATA" is displayed AND the tape is left running, the tape may have passed the "tone leader" section by the time the switch combination is re-entered on the Memorymoog. This will result in an "ERROR" message. Therefore rewind the tape and start over.

##### "DISABLED" PROMPT

The Memorymoog RECORD MODE is DISABLED, preventing the tape from loading. Hit C,8,ENTER, your 4-digit "security code", ENTER,ENTER. Rewind the cassette and start over.

##### "SEQ DATA" PROMPT

You attempted to VERIFY (or LOAD) cassette SEQUENCES, but instructed the Memorymoog to VERIFY (or LOAD) cassette PROGRAMS.

##### "PGM DATA" PROMPT

You attempted to VERIFY (or LOAD) cassette PROGRAMS, but instructed the Memorymoog to VERIFY (or LOAD) cassette SEQUENCES.

##### "ERROR" PROMPT

Typically, the playback volume is too high. This results in motor noise, hum, etc. appearing as additional data. Try lowering the playback volume of the recorder, rewind the tape and try again. If your MEMORYMOOG consistently indicates "ERROR" at the END of the SAVED data AND playback volume of the recorder has had no effect on this, the recorder may need to have the heads cleaned and demagnetized. If this fails, try to SAVE and VERIFY your presets on another cassette, using the same tape recorder. If this works the original CASSETTE is faulty. If the cassette still indicates "ERROR", try using another tape recorder.

#### "VOL LOW" PROMPT

Typically the playback volume is too low. Rewind the cassette, increase the playback volume and try again. Repeat this if necessary. If this does not work, or the Memorymoog indicates "ERROR" after increasing the playback volume refer to the VERIFYING BY EAR section below.

#### VERIFYING BY EAR

If a cassette constantly results in an "ERROR" or "VOL LOW" message, play back the cassette and listen to it. See DIGITAL RECORDED SOUNDS above. Specifically listen for drastic changes in volume (drop-out) which results in "VOL LOW" and/or wild pitch fluctuations which result in an "ERROR" indication. Also listen for low pitched "buzzing" which also results in "ERROR". See GENERAL section above. If any of the above conditions occur, the cassette tape is usually unusable. In the case of low frequency "buzzing", play the cassette until the "buzzing" changes to a high-pitched tone (tone leader), stop the cassette, reconnect the cassette recorder to the Memorymoog and proceed to the CASSETTE LOAD section. After the cassette is loaded, SAVE to another cassette following the CASSETTE SAVE procedure.

#### CASSETTE PROTECTION

Cassettes are a magnetic media and therefore should be kept away from magnetic fields found near speaker cabinets, amplifier transformers, TVs, tools, etc. Do not subject them to temperature extremes or direct sunlight. Use short cassettes of 30 minute maximum. Longer tapes are thinner and more prone to stretching. After using a cassette, NEVER leave it in the tape recorder with the play button depressed. This will result in the capstan "denting" the tape. Always fully rewind the cassette before storing it. This will prevent the magnetic portion from being exposed and possibly scratched or contaminated. Never record over existing data as the "original" data may not be fully erased. Instead, bulk erase the cassette and then reuse it.

## SEQUENCER/MIDI TIPS

### LED FLICKER

The Memorymoog Plus with its Sequencer/MIDI interface has a normal LED flicker which does not affect the sound quality or stability. This results from the microprocessor giving preference to sound rather than the displays. The light emitting diodes (LEDs) are not lit continuously even when they are "ON". They are turned rapidly off and on or multiplexed to "appear" to be on. Again, when the Sequencer, MIDI or keyboard are operated, sound sets top priority for obvious musical reasons.

### MONOPHONIC VOICING WITH MIDI

The MIDI system does not recognize some of the capabilities that are available in the Memorymoog architecture. One of these parameters is the monophonic (MONO) mode. If either the master or slave Memorymoog has a MONO program selected, the net result of MIDI transfer will be a trigger and a "drone" tone of the lowest C note. Therefore, to avoid this situation, always edit the Memorymoog to a polyphonic mode for any program that will be played via the MIDI system.

### MIDI PROGRAM NUMBERS

The beginning programs from various synthesizer manufacturers are not standardized, therefore a Yamaha will indicate "1" where the Memorymoog will indicate "0". Additionally, once the maximum program number is exceeded on another synthesizer, say at 32, it "rolls over" or starts back at the beginning. For example, Memorymoog programs 32, 64 or 76 would all represent program 1 for a Yamaha DX7.

### TRANSPORT CONSIDERATIONS

The Memorymoog carton with ALL foam pieces intact is a perfectly suitable means of shipping an instrument, including shipment by air. Furthermore, the weight and size are within limits for Express Mail anywhere in the United States and for shipment anywhere but New York State for United Parcel Service (UPS).

For heavy-duty daily usage, however, a proper transport case is recommended. Listed alphabetically below are a few of the manufacturers that currently manufacture Memorymoog cases. If your local dealer cannot arrange a case, please contact the factories listed for the nearest dealer to you:

#### ANVIL CASES

4128 Temple City Blvd.  
Rosemead, CA 91770  
213-575-8614  
Janise Brown

#### CABBAGE CASES

2458 Wood Avenue  
Columbus, OH 43221  
614-486-2495

#### STAR CASE

15525 South 70th Court  
Orland Park, IL 60462  
312-429-6200

#### VIKING CASE

P.O. Box 13457  
St. Petersburg, FL 33733  
813-327-8810  
Bruce or Art Stemmler

#### STUDIO AND STAGE MOUNTING

We would like to recommend that the Memorymoog be carefully mounted prior to playing it. The mounting arrangement should be stable and allow open access to the fan grill. One method is to use an "A" frame stand. Contact your local dealer for details or call the number below for a referral:

ULTIMATE SUPPORT  
1331 Red Cedar Circle  
Ft. Collins, CO 80524  
303-493-4488

#### FENDER RHODES HUM

The magnetic field generated by any large synthesizer or keyboard product like the Memorymoog will induce this field into other instrument magnetic pickups such as a Fender Rhodes. One solution is to shield the top cover of the Fender Rhodes with "mu-metal". A "mu-metal" shield is known to reduce hum by 80% and kits are available from:

DYNO MY PIANO  
P.O. Box 1007  
Burbank, CA 91507  
213-845-7864  
Chuck Manty

#### MIDI SPECIFICATIONS

The organization that sponsored the development and use of a Musical Instrument Digital Interface (MIDI) Standard has an "International Users Group" from which you can request further information on keyboard and computer applications that apply. Here is the address:

INTERNATIONAL OFFICES  
P.O. Box 593  
Los Altos, CA 94022  
408-253-4684

MEMBERSHIP/DATABASE  
8426 Vine Valley Drive  
Sun Valley, CA 91352  
213-768-7448