The following diagram illustrates the function of some of the controls discussed:

**SOUND: SHAMISEN (Chinese plucked instrument)**

*OSCILLATOR-1 and OSCILLATOR-2 in unison. Play black keys only in middle of the keyboard.*

**SOUND: HARPSICORD**

*Oscillator-1 and OSCILLATOR-2 in unison. Increase DECAY TIME control to 700 for lower register of keyboard.*

MOOG MUSIC would like to thank those who contributed ideas for Sound Charts, with special thanks to Hannah Shapero; we welcome further suggestions.
**SOUND: ELECTRIC PIANO**

- Controllers: 0
- Oscillator Bank: 0
- Mixer: 0
- Modifiers: 0
- Output: 0

**SOUND: VIOLA**

- Controllers: 0
- Oscillator Bank: 0
- Mixer: 0
- Modifiers: 0
- Output: 0

**NOTES:** Apply modulation gradually on sustained tones. Use MOOG 1120 Foot Pedal to control loudness. Use MOOG 1121 Foot Switch to control GLIDE on/off for portamento effects.

**SOUND: VIOLIN**

- Controllers: 0
- Oscillator Bank: 0
- Mixer: 0
- Modifiers: 0
- Output: 0

**NOTES:** *OSCILLATOR-1 and OSCILLATOR-2 in unison. Apply modulation gradually on sustained tones. Use MOOG 1120 Foot Pedal to control loudness. Use MOOG 1121 Foot Switch to control Glide on/off for portamento effects.

- *Glide when appropriate.

**SOUND: CELLO**

- Controllers: 0
- Oscillator Bank: 0
- Mixer: 0
- Modifiers: 0
- Output: 0

**NOTES:** *OSCILLATOR-1 and OSCILLATOR-2 in unison. Apply modulation gradually on sustained tones. Shorten ATTACK TIME setting on LOUDNESS CONTOUR for rapid passages. Use MOOG 1120 Foot Pedal to control loudness. Use MOOG 1121 Foot Switch to control GLIDE on/off for portamento effects.

- **Glide when appropriate.**
**SOUND: BASS VIOL, BOWED**

NOTES: *OSCILLATOR-1 and OSCILLATOR-2 in unison. Use modulation sparingly on sustained tones. Use MOOG 1120 Foot Pedal to control loudness. Use MOOG 1121 Foot Switch to control GLIDE on/off for portamento effects.

**Glide when appropriate.**

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**SOUND: PICCOLO**

NOTES: Use modulation sparingly on sustained tones. Keep NOISE VOLUME just below edge of audibility.

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**SOUND: BASS VIOL, PLUCKED**

NOTES: Vary DECAY TIME control on LOUDNESS CONTOUR to create shorter tones in upper register.

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**SOUND: FLUTE**

**SOUND: RECORDER FAMILY**

**NOTES:**
- Two octave playing ranges from middle C on keyboard or F below.
  - Soprannino 2' f-f
  - Soprano 4' c-c
  - Alto 4' f-f
  - Tenor 8' c-c
  - Bass 8' f-f
- Increase LOUDNESS CONTOUR ATTACK TIME for lower instruments.

**SOUND: OBOE**

**NOTES:** Use small amount of modulation.

**SOUND: CLARINET (BASS CLARINET)**

**NOTES:** For bass clarinet change RANGE 16' position. Place both ATTACK TIME controls at 400.

**SOUND: BASSOON (ENGLISH HORN)**

**NOTES:** Use small amount of modulation.
SOUND: TRUMPET

NOTES: Oscillators tuned to unison. Add oscillators for progressively “Fatter” tutt! sound.

SOUND: TROMBONE (JAZZ)

NOTES: Play in middle and upper keyboard. Use PITCH wheel for scooping pitches. Add vibrato with MODULATION wheel.

SOUND: HORN

NOTES: Alter FILTER ATTACK TIME and DECAY TIME controls to suit taste.

SOUND: TUBA

NOTES: Use small amount of modulation. Play articulated passages with staccato keyboard technique. Alter AMOUNT OF CONTOUR and CUTOFF FREQUENCY controls for brassy or muted effects.
**SOUND: XYLOPHONE**

NOTES: Play in middle and upper keyboard using staccato technique.

**SOUND: DRUM ROLL**

NOTES: Depress and hold any key; play rhythmically to create drum cadence.

**SOUND: TEMPLE BLOCKS**

NOTES: Detuned from unison. Detuning procedure: (1) turn SUSTAIN LEVEL control to 5; (2) detune oscillators from unison to produce rapid beating; (3) return SUSTAIN LEVEL control. Play rhythmically on black keys near middle of keyboard.

**SOUND: BASS DRUM**

NOTES: Strike and hold a note in the lowest octave of the keyboard.
SOUND: TINKLING BELLS

CONTROLLERS  OSCILLATOR BANK  MIXER  MODIFIERS  OUTPUT

NOTES: Alter modulation amount. Strike and hold keys in low, middle, high octaves of keyboard.

SOUND: EMERSON, LAKE AND PALMER'S Trilogy

CONTROLLERS  OSCILLATOR BANK  MIXER  MODIFIERS  OUTPUT

SOUND: EMERSON, LAKE, AND PALMER'S Aquatarkus, from Tarkus

CONTROLLERS  OSCILLATOR BANK  MIXER  MODIFIERS  OUTPUT

NOTES: Tune oscillators to a fourth and a fifth from the root.

SOUND: EMERSON'S FAT BASS FROM Brain Salad Surgery

CONTROLLERS  OSCILLATOR BANK  MIXER  MODIFIERS  OUTPUT

NOTES: *Oscillators tuned to unison.
**SOUND: EMERSON'S STEEL DRUM FROM** Brain Salad Surgery

**NOTES:** Full modulation. *Oscillators-1 and -2 in unison. Every key will produce a different sound—find your favorites!

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**SOUND: GOOD SOUND**

**NOTES:** *Tune oscillators to triad or fifths; alter RANGE settings.

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**SOUND: RICK WAKEMAN'S Catherine of Aragon**

**SOUND: GOOM**

**NOTES:** *All OSCILLATORS in unison.*
### SOUND: THE MOOG SOUND

**CONTROLLERS**

**OSCILLATOR BANK**

**MIXER**

**MODIFIERS**

**OUTPUT**

**NOTES:** *OSCILLATORS-1 and -2 tuned to perfect fifth.

### SOUND: MOON CHORD

**CONTROLLERS**

**OSCILLATOR BANK**

**MIXER**

**MODIFIERS**

**OUTPUT**

**NOTES:** *OSCILLATOR-2 in unison with OSCILLATOR-1, OSCILLATOR-3 tuned to an augmented fourth.

### SOUND: THE T.L.R. SOUND

**CONTROLLERS**

**OSCILLATOR BANK**

**MIXER**

**MODIFIERS**

**OUTPUT**

**NOTES:** *Oscillators in unison; octaves altered.**Alternate white noise with pitched sound. Glide optional. Play through chords rapidly—invent figures.

### SOUND: HINDEMOOG

**CONTROLLERS**

**OSCILLATOR BANK**

**MIXER**

**MODIFIERS**

**OUTPUT**

**NOTES:** *Oscillators tuned to perfect fifth. Second rectangular wave gives ¾ time. Glide optional. **Set modulation wheel so that alternating interval is a perfect fifth.
HOMMAGE A BADINGS

NOTES: *Oscillators tuned to augmented triad (consecutive major thirds.)

VREE OO BLEEP-BLEEP

NOTES: Depress one key and hold until tone cycle is complete.

RING MODULATOR EFFECTS


RUNNING RHYTHM

NOTES: A Rhythmic ostinato in the bass register. Glide is optional.
NOTES: Play various registers of keyboard.

NOTES: Play lowest, then highest key and release.

NOTES: Depress and hold any key. Release key at peak of sound and slowly rotate the EMPHASIS control to 7 and return to 0.

NOTES: Play an upper key rapidly followed by a lower key. Increase AMOUNT OF CONTOUR control to 5 for closer thunderclaps.
**SOUND: WIND**

- **CONTROLLERS**
- **OSCILLATOR BANK**
- **MIXER**
- **MODIFIERS**
- **OUTPUT**

**NOTES:** Play keys for winds of varying intensity.

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**SOUND: GASOLINE ENGINE**

- **CONTROLLERS**
- **OSCILLATOR BANK**
- **MIXER**
- **MODIFIERS**
- **OUTPUT**

**NOTES:** Depress key. Change speed of engine by altering OSCILLATOR-3 FREQUENCY control.

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**SOUND: EXPLODING BOMB**

- **CONTROLLERS**
- **OSCILLATOR BANK**
- **MIXER**
- **MODIFIERS**
- **OUTPUT**

**NOTES:** Strike a low note.

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**SOUND: HEARTBEAT**

- **CONTROLLERS**
- **OSCILLATOR BANK**
- **MIXER**
- **MODIFIERS**
- **OUTPUT**

**NOTES:** Depress any key.
**SOUND: SIREN**

NOTES: Depress any key. The FILTER can produce a pure sine waveform. The CUTOFF FREQUENCY control establishes the pitch of this tone.

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**SOUND: STEEL DRUM**

NOTES: *Vary FREQUENCY control for different sounds.

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**SOUND: WHISTLERS**

NOTES: Play the keyboard. Another use of the FILTER as a sound source.

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**SOUND: ROUTING AN INSTRUMENT THROUGH THE MINIMOOG**

Insert S-Trig Plug

Insert external signal

NOTES: Turn EXT. INPUT VOL. control down if OVERLOAD light stays on.
Note — if output is weak, increase gain of amplifiers.