



THE PATCH

**SEQUENTIAL
CIRCUITS INC**

natural

elements

A fluid performer: the **POLY-SEQUENCER** now with **10,000-NOTE STORAGE** and **SEQUENCE GROUPING!** This sequencer is very easy to use and features real-time or single-step recording, instant transposition, variable playback speed, overdubbing, complete editing functions, and built-in digital cassette recorder for sequence/program storage. Earlier models can be modified for extra memory and grouping programs.



Air your music with the **REMOTE PROPHET** keyboard! Pitch, modulation, and selectable volume or filter wheels, four octave keyboard, five Bank Select switches, and eight Program Select switches are arranged in a no-frills package weighing less than ten pounds. Guitar strap and twenty foot connection cable are included.



Rock solid sound: the **PROPHET-5**, already the standard and most popular polyphonic synthesizer for over four years, now has **120 PROGRAMS**. For models equipped with analog and digital jacks, Mod and Pitch Wheel functions can be controlled by foot pedals or by any control voltage with its **ANALOG INTERFACE BOX**, now available from your SCI dealer. For more information, see your dealer, or write to Sequential Circuits, 3051 N. First St., San Jose, CA 95134.

SEQUENTIAL
CIRCUITS INC.
the sound choice

SCI ANNOUNCEMENTS

We would like to introduce some new talent in the lineup for Sequential Circuits! Phil Huston is our newest salesperson (from Guitar Center, San Jose). He joins Bob Styles, Kevin Kent, and Rick Davies in our Sales Department.

Bob Higley has been hired as Production Manager for SCI. He was previously VP of Manufacturing for AM International, Micro Graphics Division. His knowledge and experience will be a great asset to Sequential Circuits.

Riley Smith has been promoted to Service Manager and Brent Silveria has been appointed Customer Service Representative (his duties will include resolving all dealer and customer problems and complaints). Dan Ramsauer is now in charge of all Field Service operations, domestic and international (Congratulations, Dan!).

SCI has a new corporate logo designed by Greg Armbruster, Advertising Coordinator. Greg took the simple, reverse "S" shape from the evolution of the treble clef and combined it with the existing Sequential Circuits typeface. John Mattos air brushed the design, creating a three-dimensional symbol and "ruby" letters.



Look for this new logo, which will be extensively used in all future ads and promotional campaigns!

AND THE WINNER IS. . .

Philip Galanter! and who's Philip Galanter? Phil purchased one of the first Pro-Ones available in Chicago from Gary Gand Music. He and hundreds of other musicians who purchased Pro-Ones before October 1, 1981 were eligible for the free Prophet-5 drawing sponsored by Sequential Circuits. All warranty cards received before the first of October were placed in a large box and Sandy Kennedy, a manager with Peat, Marwick, Mitchell & Co. (SCI's CPA firm), drew the winning entry.

Phil has been playing synthesizers for ten years. He worked with electronic music at Eastern Illinois University, Southern Illinois University, and Governors State University. His compositional focus has evolved from atonal "20th century" styles to include punk and avante-garde/contemporary forms.

"I know more about electronic music than I can put to use on my budget. I bought the Pro-One because it simply offered more features than anything else in the price range. . . the Pro-One allows for a wide selection (of) modulation options . . . not to mention its 'smart' keyboard."

"I know I can put the Prophet-5 to good use in both tonal and atonal applications. When I saw PII in Chicago I noted that Kieth Levine used one."

When not making music, Phil works at Northwestern University where he directs a project at the academic computing center which markets a statistical analysis software package to over 200 computer sites world wide.

PROGRAMMABLE EFFECTS

The Model 500 Pro-FX from Sequential Circuits is the first integrated signal processing system to offer the convenience of a modular rackmount design with the flexibility and control of full programmability. Musicians, sound engineers, producers, and home studios can now consolidate all their effects and mixing into one package and have instant and accurate control over a wide variety of sound changes while playing or mixing.

The mainframe includes a system controller and space for six effects modules while also providing power and program control for up to thirty modules, mounted in three additional expansion chassis.

All input and output impedances are standardized for complete compatibility. Patching between modules is via standard ¼ inch phone plugs into back-panel jacks.

The first 500 Series modules available will include a phase shifter (Model 510), distortion/sustainer (512), 4 into 2 mixer (514), parametric equalizer (516), reverb (518), sync/transposer (520), and a delay/chorus/flanger (522). All switch and control settings on each module may be stored and recalled in 64 programs, with immediate access to any combination of effects. A cassette interface permits sets of 64 programs to be saved on cassette tape, thus creating a "library" of effects settings.

For remote control, a footswitch is used to select any one of 64 effects patches or to step through a preset sequence of patches. A single voltage pedal may be used to control any combination of effects simultaneously, eliminating the need for multiple switches and pedals on stage or in the studio.

This exciting new development effectively overcomes all the known disadvantages and limitations of using a bank or series of separate effects modules and is certain to be well received in many diverse fields for which it is suitable: home recording, sound reinforcement systems, guitarists, keyboard players, professional recording studios, etc. The Pro-FX system offers a tremendous amount of versatility for customizing a particular system to meet all the user's requirements and needs. Once again, Sequential Circuits is a leader in meeting the demands of musicians today and tomorrow.

THE PATCH

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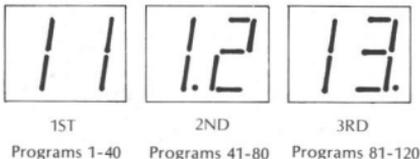
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John Mattos

PROPHET-5 UPDATE

The new Prophet-5 now comes with 120 Programs! Of course, all Rev 3's can be retrofitted with this new software package (see your SCI dealer for details). Each unit is shipped with 120 pre-programmed sounds that combine the best of the original Factory Presets, the Alternate Factory Presets, and those "special" patches our Sales people have been saving!

With the new software, it's easy to access each set of 40 programs. Hold the Bank Select switch down and press Program Select switch "1" for the first set of 40 programs. Holding the Bank Select switch and pressing Program Select switch "2" will access the second set and Program Select switch "3" will produce the third set of 40 programs. The second and third sets of programs can be identified by the decimal point which appears in the LED readout:



If you own a Rev 3 Prophet-5 (starting with serial # 1301), check with your SCI dealer today to arrange for your software update.

— Analog Interface —

Another new addition to our growing list of accessories, for those Prophet-5's equipped with analog and digital jacks (standard on all Rev 3.2 machines), is the Analog Interface Box. This device allows you to control the Pitch and Mod wheels with foot pedals; or any control voltages! Retailing for \$50.00, this accessory can be a performance lifesaver for the musician who already has both hands full.

SYN-COMP by O. Z. HALL

I am offering a program manipulation service. The name of my endeavor is SYN-COMP. I have a Rev-3 (Prophet-5) with computer interface. I also have an APPLE II microcomputer. With a bit of assistance from the Sequential Circuits technical staff, I have succeeded in connecting the two. It became apparent that my system might be useful to other Rev-3 owners. Thus, I have decided to offer the services that follow:

1. Combining programs from two or more program cassette dumps onto a third cassette dump.
2. Providing printed listings of cassette dumps which include both the switch positions and numeric pot values.

Future services may include large scale program library organization. This might include the cataloging of sounds and the elimination of duplicates in the Master Program Library.

SEQUENCE GROUPING!

All Poly-Sequencers for the Prophet-5 are now being shipped with two important new features: 10,000-note storage and sequence grouping! Whether you single-step your sequences or record them in real-time, the grouping function simplifies the amount of input required for a complex musical arrangement.

For example, say your piece has an intro, an "A" theme (repeated twice), a "B" theme, back to the "A" theme, and then an ending. Simply record the intro into sequence 1, the "A" theme into sequence 2, "B" theme into sequence 3, and the ending into sequence 4. Now hit the Record switch, activate sequence 5, and push the transpose button (this tells the computer that you will be sequencing sequences, not notes). Finally, hit sequence 1 once (intro), sequence 2 twice ("A" theme repeated), sequence 3 once ("B" theme), sequence 2 once (reprise of "A" theme), and sequence 4 once (ending). Sequence 5, then, is the entire arrangement. Sequence 6 could be yet another combination of these elements, which could include the arrangement in sequence 5! This system also allows you to change the location of your sequences; the sequence in number 1 can be moved to number 6, for example.

An added feature for real-time recording enthusiasts is the new method of adding to an existing sequence. Start the sequence in playback mode, hit the Record switch, and when the end of the sequence arrives, the computer automatically shifts you into record mode. Notes played during the existing sequence will not be recorded, so you can actually play along with your sequence and then keep on playing in rhythm to add to the original without dropping a beat or stopping to hit a switch! These new features and extended memory capacity definitely make the Model 1005 the most versatile Poly-Sequencer available on the market.

For Prophet-10 owners who've had the Braemar tape drive installed in the left side panel of their machines, extra memory and sequence grouping software is available for your instrument; see your SCI dealer for more information.

The price of combining programs from two cassette dumps onto a third is \$10.00, postage included. The price for listing the pot values and switch positions for all 40 programs on one cassette dump is \$10.00, postage included. The first two services will be available at publication date. Other services will be added according to market demands. Suggestions are welcome!

It should be emphasized that new cassette dumps should be made before sending any cassette. There should be two cassette dumps (D1 and D2) 15 seconds apart followed by 30 seconds of silence. Next, the same two dumps should be repeated, in case there is any problem with reading the first two. Also, instructions for copying should be in the form of 'D2-P26 to P14'. This is an instruction to take Program 6, Bank 2, from Dump 2 and store it in Program 4, Bank 1 on the new cassette Dump.

Send information and service requests to:

SYN-COMP
P.O. Box 7471-A
Birmingham, AL 35253

SAVING ONE BANK TO TAPE

In addition to storing complete files of 40 (or 120) programs, single banks of 8 programs each can be saved through the cassette interface. The saved banks can be loaded into any bank location. This allows you to, for example, easily create a new 40-program file from as many as five different bank files. This would be done by first loading each complete file into the Prophet and separately saving the desired banks. Then the five individual bank files would be loaded into the Prophet. Finally, this group would be stored as a complete 40-program file.

1. Check that Prophet's back panel RECORD switch is DISABLED.
2. Insert cassette into recorder and REWIND to start of tape.
3. Check record and playback levels as discussed in the Prophet-5 Operation Manual (CM 1000C), page 3-2.
4. Check cable from CASSETTE OUT jack to recorder input.
5. Select the bank before the one you want to record. For example, to record BANK 3, select BANK 2. To record BANK 1, select BANK 5.
6. Place recorder into RECORD mode and wait 5 seconds for the tape leader to pass.
7. Hold both the Prophet's orange RECORD switch and the BANK SELECT switch and press the SAVE TO TAPE switch.
8. The front panel will go dark, except the SAVE TO TAPE LED will remain lit.
9. When, after about 30 seconds, the LOAD FROM TAPE LED blinks, STOP the recorder.
10. Rewind to start of tape.

—Tape Verification—

11. Check cable from recorder output to CASSETTE IN jack.
12. Place recorder into PLAY mode and wait 10 seconds for tape leader to pass.
13. Press the (blinking) LOAD FROM TAPE switch.
14. The LOAD FROM TAPE LED will remain lit. When it goes out, STOP the recorder. With tape verification complete, the Prophet enters its TUNE routine and will "comeup" with PROGRAM 1-1 after a few seconds.

—Error Detection—

15. If the LOAD FROM TAPE LED blinks instead, an error has occurred. Try steps 10 through 13 again.
16. If step 15 fails, try from step 2 again. Check record and playback levels. Try a new cassette.

LOADING ONE BANK FROM TAPE

1. Check that Prophet's back panel RECORD switch is ENABLED.
2. Insert cassette into recorder and REWIND to start of tape.
3. Check playback level.
4. Check cable from recorder output to CASSETTE in jack.
5. Select the bank before the one you want to load.
6. Place recorder into PLAY mode and wait 10 seconds for tape leader to pass.
7. Hold both the Prophet's orange RECORD switch and the BANK SELECT switch and press the LOAD FROM TAPE switch.
8. The front panel will go dark, except the LOAD FROM TAPE LED will remain lit.
9. When, after about 30 seconds, the LED goes out, STOP the recorder.

—Error Detection—

10. If the LOAD FROM TAPE LED instead blinks, an error has occurred. Try from step 2 again.

Please note that any modification or alteration of any kind performed by anyone including SCI or an Authorized SCI Service Center, will void the warranty on your unit. The only exception to this is an Authorized SCI modification which includes its own warranty coverage.

REV 1, REV 2, REV 3 . . ?

The word "rev" is an abbreviation for revision. The first Prophets (serial numbers 0001 to 0182) are rev 1's. Rev 2's are serial numbers 0183 to 1300. Rev 3's are serial numbers 1301 to 2469. And to make things even a little more difficult, there is now a rev 3.2 (serial number 2470 on up). How do you tell the difference between them? The rev 1's have the power on switch on the front panel. That's the easiest way to tell them. Rev 2's have the power on switch on the back panel, but there is a tune switch and an edit button at the right side of the front panel. Rev 3's have cassette interface controls on the front panel (other models might have cassette interfaces added to them because this is available as a modification, but they have different switches used). (Reprinted from *Contemporary Keyboard's* "Questions" column by Dominic Milano, July, 1981; used by permission, all rights reserved.)

Rev 3.2 has Analog and Digital jacks beside the power switch on the back panel. These jacks are the interface for the Remote Prophet keyboard, the Poly-Sequencer, and the Analog Interface Box. (All Rev 3's can be retrofit with these jacks; see your SCI dealer for details.)

can cancel four of the five voices and use your Prophet as a monophonic synthesizer!

To return your instrument to normal, turn off the power switch and then back on; all five voices will be present.

VOICE DEFEAT

If you ever need to cancel a voice (or voices) on a Rev 3 Prophet-5, you can do so very easily. Simply hold down the objectionable note on the keyboard then press Bank Select switches "1" and "8" simultaneously. The computer will cancel that voice. You

USING SCALE MODE

What did the modes of the medieval period really sound like? Why was the Dorian mode considered “peaceful” and the Phrygian mode “warlike”? How can you use that Sitar patch without the correct Eastern tuning? Don Ellis played a quarter-step trumpet; you’ve got the sound but what about the scale itself? Have you considered composing or performing microtonal music?

The Rev 3 Prophet-5 (starting with serial # 1301) offers the musician an opportunity to experiment with these and other alternate tunings in Scale Mode. Try Scale Mode; it’s not that hard to use, and you may find that you like the sound of pure intervals. Or, you may like the sound of very impure intervals. The Prophet-5 gives you the choice. Also, now that the Model 1005 Polyphonic Sequencer is available, you can sequence temperament changes to accommodate harmonic key changes (or simply to create new sounds).

Just keep in mind that you can only switch Patch programs in Patch Mode, and you can only switch Scale programs in Scale Mode. Therefore, if you have entered Scale Mode and altered any intervals, then wish to return to Patch Mode with equal-temperament (E-T), you must first select an E-T Scale program before you recall Patch Mode.

These instructions describe how to first create the required E-T Scale program, then how to edit it into other tunings, and how to quickly move between Patch and Scale Modes.

Preparation

1. Switch power on (this is always a good start).
2. Allow a thorough warm-up, possibly several hours, depending on environment and the precision you desire.
3. Select a Patch Mode program to work with in tuning.

Recording Equal-Tempered Scale Program

4. With one hand hold the PROGRAM SELECT of the selected Patch program and (with other hand) hit TUNE. Notice that that PROGRAM SELECT display inverts—the selected program is unlit. This signals Scale Mode.
5. To ensure accuracy, press TUNE.
6. Press RECORD on (it lights).
7. Select the BANK in which the E-T Scale program is to be stored.
8. Press the PROGRAM SELECT for the E-T Scale program destination. The E-T Scale program is now recorded. (If you were to return to Patch Mode at this point and select this program, you would hear a useless program.)

Creating Alternative Temperaments

In Scale Mode, alternative tunings are created by editing the E-T program in the same way as Patch Mode; take one basic sound and edit it into an unlimited number of variations.

9. Unlike Patch Mode, PRESET does not automatically come on when you enter Scale Mode. Switch PRESET on each time Scale Mode is entered.
10. Press TUNE (for best accuracy).
11. While playing on the keyboard, adjust the knobs (see FIG A) to tune the intervals (this also works like Edit in Patch Mode—the knobs don’t show their “real” positions until you move them.)

Recording the Alternative Temperament Program

12. When you have set the desired tuning, switch RECORD on.
13. Select the BANK in which the alternative-tempered Scale program is to be stored (designated in step #7).
14. Press the PROGRAM SELECT for the alternate Scale program destination. This Scale program is now recorded. (So this program location cannot be used in Patch Mode.)
15. Additional tunings can be created by selection and editing in the same manner. Of course, you can start by editing any Scale program.

Returning from Scale Mode to Patch Mode

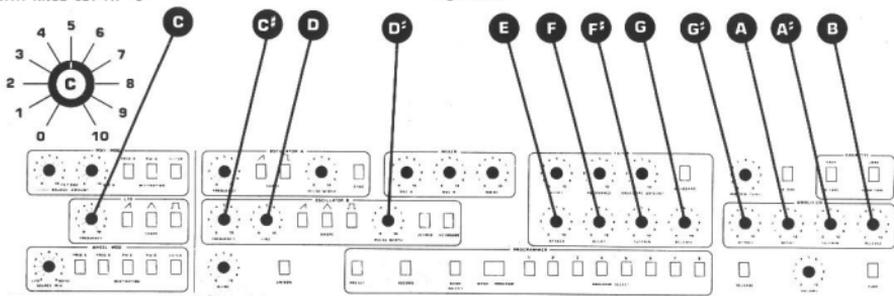
16. With one hand hold the PROGRAM SELECT of the Scale Program which you want to maintain (which may often be the E-T Scale program) and hit TUNE.
If you somehow can’t find your E-T program and want to get the Prophet quickly back to normal, just reset (switch power off then back on).

Normal Use

Once you have created a few Scale programs, you can easily manipulate Patch and Scale programs as follows:

17. In Patch Mode, select the “sound” program. Without lifting your finger from its PROGRAM SELECT, hit TUNE to switch to Scale Mode.
18. In Scale mode, switch PRESET on and select Scale program. Without lifting finger from its PROGRAM SELECT, hit TUNE to return to Patch Mode.

Figure A.



A DIGITAL INTERFACE FOR THE PRO-ONE

It's possible to create an "orchestration machine" using a home computer as the sequencer/controller for several Pro-Ones. Each Pro-One could be patched for different instrumental timbres and the entire array conducted by the computer. The more clever programmers could add the visual notation as part of the computer's duties, but it's the sound that would be impressive!

Adding a digital interface for external computer control requires both some simple hardware modifications to the Pro-One and the creation of software for your system. If you doubt your technical ability to install the interface, please see an SCI Authorized Service Center or contact our Service Department. However, please note that we must leave all questions of programming your system to you, and that any modification or alteration of any kind performed by anyone including SCI or an Authorized SCI Service Center, will void the warranty on your unit. The only exception to this is an Authorized SCI modification which includes its own warranty coverage. Now for the modification. . .

1. Remove the front panel, and then remove the 8021 microcomputer (U113) from its socket. Store it in conductive foam and keep it in a safe place; avoid excessive handling of this chip. Note that with the 8021 removed, the Pro-One's keyboard cannot operate.
2. Jumper pin 2 of the 8021's socket to J101-7. Pads are provided on the printed circuit board for this purpose.
3. Locate the area between the trigger switch and the repeat/external switch (in the mode section). You'll see a diode, a resistor, and between these two parts, space for a resistor (this is labelled "optional (REMOTE CPU)". Add a 10k Ohm, ¼ Watt, 5% resistor in the space between the existing diode and resistor.
4. The accompanying table lists pin assignments for J101. Mate J101 with a 14 wire ribbon cable terminated in a DIP plug.

DIGITAL INTERFACE PINS (J101)

Pin	Signal
1	D5
2	D4
3	D3
4	D2
5	D1
6	D0
7	Gate
8	DAC enable
9-14	Ground

The interface is compatible with standard TTL logic, where less than 0.8V signifies 0 and greater than 2.5V signifies 1. It accepts six data bits (D0 through D5). This allows the numbers 0 through 63 (decimal) to convert to over five octaves of "keyboard" control when latched to the internal digital-to-analog converter (DAC) by the positive going DAC Enable (DAC EN) pulse. The Gate is exercised via a bit at pin 7.

To play notes on the Pro-One, the system driving it will have to do something like the following (the way in which these events occur is not as important as their sequence): At power-up, the analog Keyboard Control Voltage (KYBD CV) output from the DAC (which controls the oscillators and filter) is unknown. Nothing is now heard from the Pro-One because the envelope generators are not being gated. First the system somehow decides what key (out of 63) it wants to play. It then sets up the key number in binary form on D0-D5. (This might be done with a six-bit output port.) Next DAC EN must be forced high, latching the key data. For practical purposes, a delay of 20 microseconds will allow the DAC time to settle (worst-case). At this point, GATE can go high, triggering the envelope generators. When the note is to be turned off, it is likewise advisable to turn the GATE off (low) before again strobing the DAC.

To return the Pro-One to normal operation, unplug your system from J101, remove the 10k resistor mentioned previously in step 3, cut the jumper installed in step 2, and carefully re-install the 8021 (U113).

The technical staff of Sequential Circuits would, of course, be interested in the results of any successful experiments using the digital interface. Write to Sequential Circuits, 3051 North 1st Street, San Jose, CA 95134; or call (408) 946-5240.

STRINGS. . .

Real string sections sound the way they do because all violinists don't play perfectly in tune with each other. Also, each musician has a different rate and depth of vibrato when playing a sustained pitch. This causes a "beating" between the notes sounded on each instrument. Furthermore, on a more technical level, there are phase differences between each instrument (since no two violins are exactly alike) which creates harmonic shifts resulting in a constantly changing tone quality. When all these factors are combined in the form of a string section, the effect is a lush or "fat" sound. The key to synthesizing this sound is generating as much "motion" within the tone quality as possible. Aside from the fact that the Prophet is polyphonic, each note played should sound like more than one violin.

To create the sound of a string section, start with the patch in Figure 1. The front panel has been divided into two sections, left and right, at the line marked "A." Controls to the right of "A" determine pitch, volume, tone quality, and articulation; controls on the left (the modulation section) will generate the shifting or "motion" quality within the sound.

First we'll discuss the settings on the right side of the front panel. The oscillators are tuned up two octaves using square waves with "off setting" pulse widths. Since the Mixer volumes are programmable, Oscillator A and B have been set at "6" rather than "10" to allow for more volume on other patches based on this program. (This is generally a good idea for most patches, especially if pre-set volume levels are important performance considerations. If all your patches are based on Mixer volumes of "10," then overall performance volume can only be increased with the master volume knob; whereas, pre-programmed volumes offer an alternative if both hands are busy!)

The Filter is set with Keyboard on and Filter Cut off fairly high but not wide open. A single violin has a brighter sound (higher Cutoff) but a string section has an overall "mellower" timbre, due to harmonic addition and cancellation. The slight use of resonance also helps to achieve this blended, mellow sound. The VCA (Voltage Controlled Amplifier) envelope is set for a slow attack and release which results in a smooth entrance of the sound (no percussive or sudden attack) and a gentle fading when the key is released.

At this point, the tone quality of the sound is more like an organ than a string section. In order to add "motion" to the sound, use the modulation sections on the left side of the front panel. There are two types of modulation available on the Prophet-5: Poly-Mod (Polyphonic Modulation) and Wheel-Mod (Pitch and Modulation wheels). For the fullest sound possible, both types of modulation should be used.

With the Poly-Mod, OSC B (Oscillator B) can be used to frequency-modulate OSC A on each of the Prophet's voices (in this case, to a very slight degree). Since each voice is modulating or detuning itself (OSC 1B modulates OSC 1A, 2B modulates 2A, etc.), the amount of detuning will vary slightly from voice

to voice. When two or more oscillators are slightly out of tune, there are harmonic cancellations resulting in a phasing sound. This shifting tone quality is further enhanced by using the Wheel-Mod to vary the Pulse Width of both Oscillator A and B with a low frequency (LFO) triangle wave form. This added harmonic shift combines with the Poly-Mod to create a "fat" string section sound.

Variations of this sound are shown in Figures 2 and 3. The "Solo Fiddle" in Figure 2 requires very few changes: OSC B Amount is reduced (since this is a solo sound, less detuning is necessary), and the Poly-Mod envelope is used in conjunction with the Attack of the Filter envelope. The result is the sound of a Blue Grass fiddle player sliding to hit the notes. This effect can be enhanced by using the Pitch Wheel to bend up to the desired note by a half-step or more. Also, playing intervals of thirds and fifths adds a country flavor to this sound.

Figure 3 is a cello patch; intended to sound like several cellos playing together, rather than a large cello section. This patch is quite similar to the Basic String Section sound except for a few differences in the modulation settings and the filter section. Instead of modulating the A Oscillators with the B Oscillators, modulate the filters with the B Oscillators. This reproduces the slightly "buzzy" sound of cello strings being bowed. The new filter settings will also enhance this effect. Remember to lower the frequencies of both oscillators to simulate the cello's natural range.

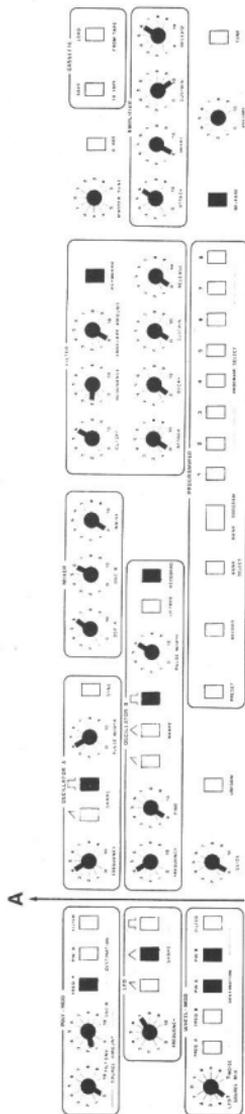
In conclusion, three general factors should be considered when programming string sounds:

- 1) Everyone has a different perception of string sounds, so Filter and Modulation settings must be adjusted to your ear—do not take our knob settings for granted!
- 2) A stringed instrument changes tone quality over its entire range. To simulate this, a "dedicated" string machine is designed to change timbre over its entire keyboard. The string sound you program on a Prophet will not sound the same outside the two octave range in which it was adjusted, unless you vary the Filter and Modulation settings while performing. For a wide range of good string sounds, program at least three patches: high, for violins; medium, for violas or cellos; and low, for basses.
- 3) These patch diagrams were based on a Rev 3 (starting with serial # 1301) Prophet-5. They will sound slightly different on a Rev 1 or Rev 2; however, with a little adjustment of the Filter and Modulation settings, you can create a string sound as good as any Rev 3!

One final note: The word "slightly" has been used in this article in the same way as a "pinch" is used in cooking. When patching a synthesizer sound, a slight difference in control settings can mean a noticeable difference in sound. Use these examples as a basis for your own exploration of string sounds and feel free to change any control setting to discover something new.

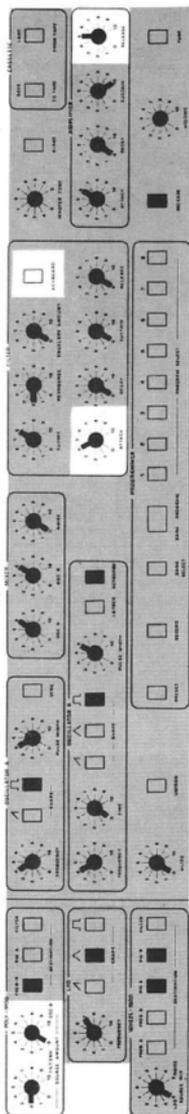
—Dan Borba

Figure 1
BASIC STRING SECTION



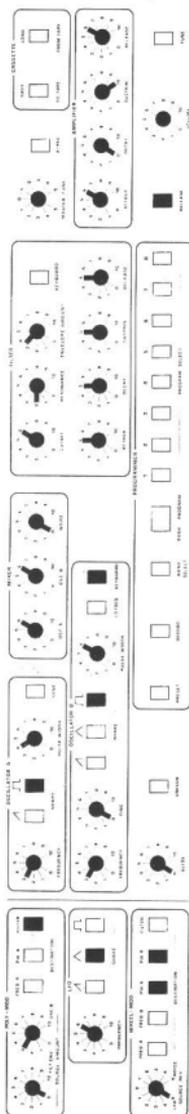
NOTES: Adjust Mod-Wheel from "0" to "1/2". Two further adjustments can be made to increase the "motion" quality of the sound: OSC B can be detuned from OSC A by setting the Fine control of OSC B between "1" and "2," and the Pulse Width of OSC A in the Poly-Mod section can be activated, which will increase harmonic modulation.

Figure 2
SOLO FIDDLE



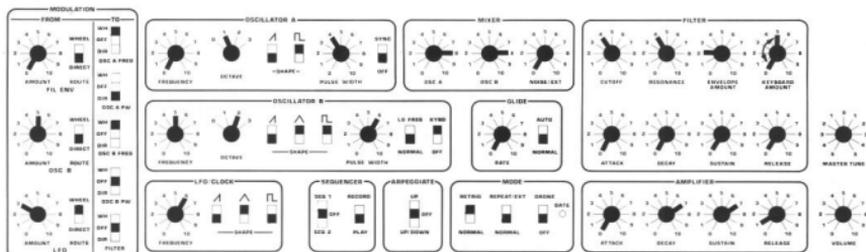
NOTES: All settings are the same as the BASIC STRING SECTION except where indicated. To brighten the tone, set the Filter Cutoff at "10." By setting the Filter Envelope Amount at "2" and the Attack of the Filter Envelope at "6," the tone will have a brighter "bowing" quality when it starts. Also, the articulation of the sound can be modified so the beginning is slightly louder than the sustain of the pitch: Decay of the Amplifier Envelope at "5," and Sustain at "4." Again, if more phasing or "motion" is desired, raise the OSC B Amount in the Poly-Mod to "2," turn on the Pulse Width of OSC A, and adjust the Mod-Wheel from "0" to "1/3."

Figure 3
CELLO



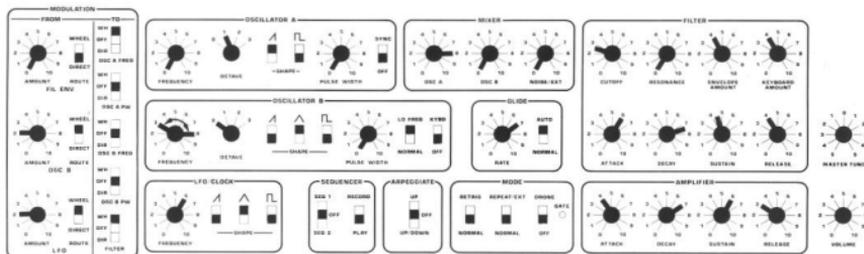
NOTES: Adjust Mod-Wheel from "0" to "1/4." For a brighter tone, increase the Filter Cutoff to "7." Again, the articulation of the sound can be modified so the beginning is slightly louder than the sustain of the pitch: Decay of the Amplifier Envelope at "5," and Sustain between "4" and "5." More phasing can be added by turning the Filter Envelope Amount in the Poly-Mod up to "7," and activating the Pulse Width of OSC A.

PRO-ONE PATCHES



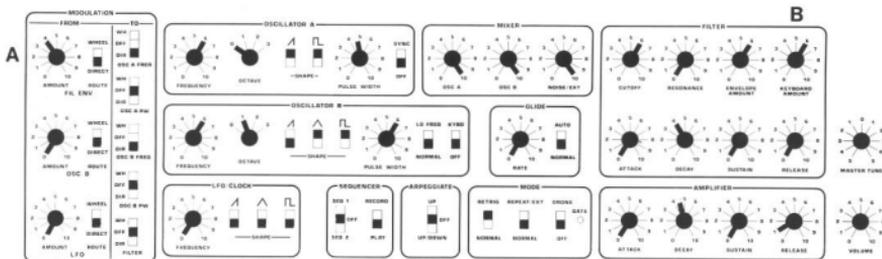
SOLO ORGAN

NOTES: Vary Keyboard Amount in the Filter section for brightness. Vary Envelope Amount for the “key click.” Adjust Cutoff for “dark/light” tone. Tune OSC B up one octave + 5th. Adjust Filter Resonance carefully. Add Mod Wheel for vibrato effect.



TROMBONE

NOTES: With OSC B Keyboard off, set up the patch as shown. When Mod Wheel is moved forward, OSC B and LFO are out of phase, creating a more uneven vibrato. With OSC B set at “8” and increased Modulation Amount, moving Mod Wheel forward adds “overblown” sound. Use Auto-Glide for phrasing.



SNARE DRUM

NOTES: A) Increase for brighter sound. B) Experiment with entire keyboard range to discover desired pitch of snare.

prophet people

- Phil Aberg/Studio Synthesist
Abba
A Taste of Honey
Royce Albrighton/Nektar
Ambrosia
American Center for Electronic Music
Brian Auger
The Baby's
Marty Balin
Tony Banks/Genesis
Walter Becker
Ken Bichel/Studio Synthesist
The Blice
Michael Boddicker/Studio Synthesist
John Bowen/Studio Synthesist
Brothers Johnson
Kim Bullard/Poco
Jay Byalick/Studio Synthesist
David Byrne/Talking Heads
Tom Canning/Al Jarreau
Canyon Foundation
Kim Carnes
Suzanne Ciani/Studio Synthesist
Phil Collins/Genesis
Commodores
Con Funk Shun
Tom Coster
Michael Cotton/Tubes
Bill Cuomos/Glen Campbell
Ray Davies/Kinks
Dire Straits
Klaus Doldinger/Passport
Geoff Downes/YES
Larry Dunn/Earth, Wind & Fire
George Duke
Vic Emerson/Sad Cafe
Brian Eno/Synthesist/Producer
Donald Fagen/Steely Dan
Larry Fast/Synergy/Peter Gabriel
Victor Feldman/L.A. Express
Jay Ferguson
Brian Ferry/Roxy Music
Johnny Finger/Boomtown Rats
Dan Fogelberg
Ronnie Foster/George Benson
Paul Fox/Studio Synthesist
Chris Franke/Tangerine Dream
Dave Freiberg/Jefferson Starship
Mike Gabriel/Men Without Hats
Peter Gabriel
Richard Gibbs/Chaka Khan
Dave Gilmore/Pink Floyd
Pat Gleeson/Studio Synthesist
Graham Central Station
Grateful Dead
Dave Greenslade/Greenslade
Al Greenwood/Foreigner
Don Grolnick/Session Musician
Hall & Oates
Al Hall Jr./Freddie Hubbard
Herbie Hancock
George Harrison
Jerry Harrison/Talking Heads
Molly Hatchett
Greg Hawkes/Cars
Ruppert Holmes
James Newton Howard/Elton John
Tony Hymas/Jeff Beck Group
Mark Isham/Group 87
Jean Michael Jarre
Eddie Jobson
Raymond Jones/Chic
Marty Jourard/Motels
Seth Justman/J. Geils Band
Bill Keenan/Wayne Newton
Kool & the Gang
Korgis
Allen Lanier/Blue Oyster Cult
Howard Leese/Heart
Cory Leiros/Pablo Cruise
Keith Levine/Johnny Rotten's PIL
Ramsey Lewis
Kenny Loggins
Jeff Lorber/Jeff Lorber Fusion
LTD
Jan Lucas/Gravity
Robin Lumley/Brand X
Mike Mandel/Eleventh House
Lyle Mays/Pat Metheny Group
Paul McCartney/Wings
Mike McDonald/Doobie Brothers
John McLaughlin
Meatloaf
Sergio Mendes
Jim Messina
Steve Miller Band
Mixex
Patrick Moraz/Moody Blues
Mark Mothersbaugh/Devo
Randy Newman
Michael Omartian/Session Musician
Orchestral Maneuvers
Jimmy Page/Led Zeppelin
David Paich/Toto
Dave Palmer/Jethro Tull
Jaco Pastorius/Weather Report
Oscar Peterson
Anthony Phillips
Steve Porcaro/Toto
Roger Powell/Utopia/David Bowie
Billy Preston
Michael Quatro
Records
Steve Rice/Studio Synthesist
Pete Robinson/Stanley Clark/Brand X
Greg Rollie/Journey
The Rolling Stones
Dave Rubinson/Producer
Leon Russell
David Sancious
Pete Sears/Jefferson Starship
Phillipe Seisse/Al Dimeola
Frank Serafine
Carly Simon
Wayne Shorter/Weather Report
Lonnie Liston Smith
Pete Solley/Procol Harum
Alan Steinberger/Crystal Gayle
Ray Stevens
Dave Stewart/Bill Bruford Group
Max Thomas/City Boy
Pete Townsend/Who
Ultravox
Ian Underwood/Session Musician
Rick Wakeman
Ed Walsh/Session Musician
Joe Walsh/Eagles
Dionne Warwick
Roger Waters/Pink Floyd
Kit Watkins/Camel
Blue Weaver/Bee Gees
Virgil Weber/Donna Summers
Dottie West/Kenny Rogers
Tony Williams
Bill Wolfers/Studio Synthesist
Steve Wonder
Gary Wright
Rick Wright/Pink Floyd
Dan Wyman/Studio Synthesist
Yellow Magic Orchestra
Joe Zawinul/Weather Report
Denny Zeitlin

*Above data was gathered from international and domestic dealers, warranty cards, and from the artists who deal with SCI.

“LOVE YOUR ARTWORK. . .”

“Can I get posters?” “Who does all your stuff? It’s terrific!” John Mattos does our “stuff,” and we think it’s pretty terrific, too. At 28, John is a phenomenal air brush artist whose works have drawn critical acclaim from the Western Art Directors Club and the Art Directors Club of New York.

Born in Modesto, John’s first interests included horseback riding and music as well as art. At thirteen, he received his first award for art (a blue ribbon) at the Stanislaus County Fair, where he also won an award for equestrian dressage! Music captured his attention in high school and he played a Vox “Phantom” guitar with a group that performed at every prom from Stockton to Merced. “The band was popular because we knew the long version of ‘Sunshine of Your Love,’ and the real verses to ‘Louie, Louie!’”

After high school, John majored in illustration at the Art Center College in Los Angeles and received his degree in 1975. His first “real” commission came from A & M Records for an insert in Rick Wakeman’s album, “The Myths and Legends of King Arthur.” John traveled in Europe for the next two years and worked as an illustrator in Paris. “I drew black and white rapidograph (technical ink pen) pictures of men shaking hands, women in front of refrigerators, platters of food, grinning men with fistfuls of French money; horrible work but it pro-

longed my stay—two years of no air brush.”

In 1978, John returned to California and took up residence in Palo Alto as a free lance artist. The Blank Design Group, then representing SCI, commissioned him to portray a multitude of sounds rising from a new instrument called a Prophet-5. This advertisement was entitled “Beware of False Prophets,” which was later combined with gold lettering to become the “Earotic” poster. John’s next assignment was the Sphinx ad, “A Legend in its Own Time.” This piece and all subsequent art work has been commissioned directly by Sequential Circuits, and has appeared in Contemporary Keyboard, Musician Player & Listener, International Musician and Recording World, Music & Sound Output, Sound Arts, as well as SCI publications in the form of posters, decals, literature folders, and Christmas cards.

John’s biggest contribution to SCI has been the personification of the Prophet synthesizers in the form of the Prophet Man. Originally seated on his “throne” (“The Prophet Delivers” poster), the Prophet Man has taken off (reflecting the success of the instruments he represents) and has flown a bi-plane, a turbo-jet, and a rocket plane in the “Ear * Force” campaign. In 1982 we’ll be launching him into space for some Extra Vehicular Activity with a Remote keyboard!

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Sequential Circuits has been designing state-of-the-art synthesizers for years, starting with the first fully programmable polyphonic synthesizer—the Prophet-5. It's no wonder the industry and musicians alike have dubbed the Pro-One "clearly" superior. Look into it and see for yourself!



the sound choice



Instruments By  SEQUENTIAL
CIRCUITS INC

Shown above clockwise: Prophet-10 synthesizer,
Remote Prophet keyboard, Prophet-5 synthesizer,
Poly-Sequencer, Pro-One synthesizer.

For more information, see your dealer, or write Sequential Circuits, 3051 N. First Street, San Jose, CA 95134.