

Advanced Sequencing with the XP-50

This document expands on the original "Basic Sequencing for the XP-50" Supplemental Notes. First, we will cover Patterns and using the RPS function. Next, the Track Edit functions will be examined followed by the Quantize function. We will then look at the Microscope Edit mode followed by Controllers and the Effects section. Finally, we will give some useful ideas to bring all of the XP-50's power together for your sequences.

I. Patterns

As we saw in the Basic Sequencing Supplemental Notes, the sequencer section in the XP-50 has sixteen Phrase tracks for recording. The XP-50 also allows you to record up to 100 Patterns per song (up to 99 bars each). A Pattern contains a single track that can record on up to 16 MIDI channels. Patterns do not have a Tempo or Beat track as the Phrase tracks do. This means that you can not change the tempo or time signature in the middle of a Pattern. Patterns can be used for sections of a song, repetitious parts, or for editing data in Phrase tracks. They can also be used for the RPS function. Lets record a 4 bar sequence in Pattern 001:

First, we need to select a Performance:

- 1) Press PERFORMANCE.
- 2) Use the VALUE DIAL to select Performance PR-A: 12 Pop Set 1.

Now we will record a Pattern with a drum, bass, and piano part:

- 1) Press SEQUENCER.
- 2) Press RECORD to turn the light on.
- 3) Press the PATTERN/TRACK button and use the VALUE DIAL to select pattern 001.
- 4) Press ENTER.
- 5) CURSOR to Mode and use the VALUE DIAL to select MIX.
- 6) CURSOR to Loop and use the VALUE DIAL to select 4. This will set up a four measure pattern.
- 7) CURSOR to Tempo and use the VALUE DIAL to select the desired tempo (120 BPM is the default).
- 8) CURSOR to Count In and use the VALUE DIAL to select 1.
- 9) Hold SHIFT, and press METRONOME.
- 10) Press the UP CURSOR button and use the RIGHT/LEFT CURSOR buttons to select Part 10 for drums.
- 11) Press PLAY to begin recording. Record a drum pattern with a sixteenth-note feel.
- 12) Press STOP, then hold SHIFT and press BWD to rewind to the beginning of the Pattern.
- 13) Press RECORD then press LOOP so it is lit.
- 14) Press the UP CURSOR button and use the RIGHT/LEFT CURSOR buttons to select Part 2 for bass.
- 15) Press PLAY to begin recording. Record a bass part.
- 16) Press STOP, then hold SHIFT and press BWD to rewind.
- 17) Press RECORD then press LOOP so it is lit.
- 18) Press the UP CURSOR button and use the RIGHT/LEFT CURSOR buttons to select Part 1 for piano.
- 19) Press PLAY to begin recording. Record a piano part.
- 20) Press STOP.

Now let's set up our four bar Pattern to loop:

- 1) Press EDIT so it is lit, then press LOOP (5/13).
- 2) CURSOR to Repeat and use the VALUE DIAL to select INFINIT.
- 3) CURSOR to Start and use the VALUE DIAL to select 1-01-000 (the beginning of our Pattern).
- 4) CURSOR to End and use the VLUE DIAL to select 5-01-000. This will loop our 4 measure Pattern.
- 5) Press EXIT.
- 6) Press LOOP.
- 7) Hold SHIFT and press BWD to rewind. Press Play to play our Pattern.

Using RPS

The RPS function on the XP-50 allows you to trigger up to eight Patterns simultaneously from the XP-50 keyboard. Use the following procedure to trigger Pattern #001 from C4 (middle C):

- 1) Press SEQUENCER.
- 2) Press EDIT so it is lit then press RPS (6/14).
- 3) CURSOR DOWN to the SEQ SET screen.
- 4) Press the C4 key on the keyboard and use the VALUE DIAL to select 001.
- 5) CURSOR to Playback Mode and use the VALUE DIAL to select Loop 2.
- 6) Press EXIT.
- 7) Press RPS so it is lit.
- 8) Press the assigned key (C4) to play Pattern #001. Press it again to stop playback.

Hint: If you have a song playing while using the RPS function, all of the Patterns will play back in time with the song and with each other.

II. Track Edit

The Track Edit commands give you precise control over global editing functions. You can select very large or very specific regions for editing, and modify things like note values, velocity, duration, timing, and other parameters.

Erase

You can use the Erase function to remove sections of a song, specific instruments on different MIDI channels, or almost any type of MIDI data. Use the following procedure to Erase the bass part (MIDI channel 2) in measures 2 through 4 in the Pattern we created in the above section:

- 1) Press SEQUENCER.
- 2) Press EDIT so it is lit, then press TRK EDIT (1/9).
- 3) Use the VALUE DIAL to select 01: ERASE.
- 4) CURSOR to Track and use the VALUE DIAL to select P-001.
- 5) CURSOR to Measure and use the VALUE DIAL to select 2 for 2.
- 6) CURSOR to Status and use the VALUE DIAL to select ALL.
- 7) CURSOR to Channel and use the VALUE DIAL to select 2.
- 8) Press ENTER. The screen will display EXECUTING briefly.
- 9) Press EXIT.

Delete

The Delete command is similar to Erase but will remove measures and timing information as well. You would use Delete to cut a section out of the middle of a song and remove the space so the surrounding sections play directly through. Erase will remove the data from the song and leave blank measures.

Copy

You can use the copy command to move sections of to extend their length. Use the following example to extend Pattern 001 from 4 to 16 measures in length:

- 1) Press LOOP to turn it off.
- 2) Press SEQUENCER.
- 3) Press EDIT so it is lit.
- 4) Press TRK EDIT (1/9) and use the VALUE DIAL to select 03: COPY.
- 5) CURSOR to Source and use the VALUE DIAL to select PTN 001.
- 6) CURSOR to Destination and use the VALUE DIAL to select PTN 001.
- 7) CURSOR to Measure and use the VALUE DIAL to select 1 for 5 END (END of the Pattern). This copies the four measure pattern to measure five.
- 8) CURSOR to Mode and use the VALUE DIAL to select REPLACE.
- 9) CURSOR to Times and use the VALUE DIAL to select 3.
- 10) CURSOR to Status and use the VALUE DIAL to select ALL.
- 11) CURSOR to Channel and use the VALUE DIAL to select ALL.
- 12) Press ENTER. The screen will display EXECUTING briefly.
- 13) Press EXIT. Pattern 001 is now sixteen measure in length.

Insert

This command is used to insert blank measure into a song. You can specify the time signature and the number of measures as well as where to insert them. Use the following example to insert a blank measure into Pattern 001 at measure 5.

- 1) Press EDIT so it is lit.
- 2) Press TRK EDIT (1/9) and use the VALUE DIAL to select 04: INSERT.
- 3) CURSOR to Target and use the VALUE DIAL to select TRK ALL.
- 4) CURSOR to Measure and use the VALUE DIAL to select 5 for 1.
- 5) CURSOR to Beat and use the VALUE DIAL to select 4/4.
- 6) Press ENTER.
- 7) Press EXIT.

Transpose

You can transpose any or all of the tracks in your sequence, and you can choose to transpose only certain measures or the entire song. Use the following example to transpose the piano part (MIDI channel 1) measures 6-10 in Pattern 001 up 3 steps:

- 1) Press SEQUENCER.
- 2) Press EDIT so it is lit.
- 3) Press TRK EDIT (1/9) and use the VALUE DIAL to select 05: TRANSPOSE.
- 4) CURSOR to Target and use the VALUE DIAL to select PTN 001.
- 5) CURSOR to Measure and use the VALUE DIAL to select 6 for 4.
- 6) CURSOR to Bias and use the VALUE DIAL to select +3.
- 7) CURSOR to Channel and use the VALUE DIAL to select 1.
- 8) CURSOR to Status and use the VALUE DIAL to select ALL.
- 9) Press ENTER. The screen will display EXECUTING briefly.
- 10) Press EXIT.

When doing any editing on a Song or Pattern, you should immediately check your edit by playing the section back. If you don't like the results, or if it isn't what you expected, you can press the UNDO button and reverse the edit you have just done. This is a very powerful feature that allows you to try things out and then hear the result before you have to make a final decision. UNDO will work on any of these edits.

Note: For additional Track Edit functions and information, read pages 73 to 82 of the Roland XP-50 Manual.

III. Shuffle and Groove Quantize

As we saw in the Basic Sequencing Supplemental Notes, the XP-50 has 3 types of Quantize: Grid, Shuffle, and Groove. Since we have already covered Grid Quantize, let's look more closely at the two other types:

Shuffle Quantize

Shuffle quantize uses the same basic concept as grid quantize, but allows you to add a "swing" feel, which can be adjusted by percentage. This feel is very popular in Hip Hop music but can also be used in small percentages to make almost any track feel more realistic. Let's try quantizing the 4 bar Pattern we created in section 1:

- 1) Press SEQUENCER.
- 2) Press LOOP so it is lit.
- 3) Press SEQUENCER.
- 4) Press PATTERN TRACK and use the VALUE DIAL to select Pattern 1.
- 5) Press EDIT so it is lit then press QUANTIZE (2/10).
- 6) CURSOR to Type and use the VALUE DIAL to select 2: SHUFFLE.
- 7) CURSOR to Resolution and use the VALUE DIAL to select a sixteenth note.
- 8) CURSOR to Rate and use the VALUE DIAL to select 57% (we'll come back to this).
- 9) CURSOR to Measure and use the VALUE DIAL to select 1 for ALL.
- 10) CURSOR to Channel and use the VALUE DIAL to select ALL.
- 11) CURSOR to Note and use the VALUE DIAL to select C-1 - G9.
- 12) CURSOR to Target and use the VALUE DIAL to select PTN 001.
- 13) CURSOR back to Rate.
- 14) Press PLAY. Use the VALUE DIAL to change the Rate amount. You can hear the changes as you vary the amount. A setting of 69% adds a "Hip-Hop" feel to the Pattern, but small amounts (54%-54%) slightly enhance the groove without drastically changing the feel.
- 15) Press ENTER to execute the change.

Groove Quantize

Groove Quantize is a unique feature found in the XP-50. There are 90 different feels, called Groove Templates, that can affect the rhythm and feel of a song. Several Templates adjust the placement of notes, and apply dynamics to fit the Style. As with Shuffle Quantize, you can try different settings while listening to your sequenced material:

- 1) Press SEQUENCER.
- 2) Press LOOP so it is lit.
- 3) Press PATTERN/TRACK so it is lit.
- 4) Press EDIT so it is lit then press QUANTIZE (2/10).
- 5) CURSOR to Type and use the VALUE DIAL to select 3: GROOVE.
- 6) CURSOR to Target and use the VALUE DIAL to select PTN 001.
- 7) CURSOR to Template and use the VALUE DIAL to select 01: 16 Strait.
- 8) CURSOR to Mode and use the VALUE DIAL to select CLK&VEL.
- 9) Press PLAY. Use the VALUE DIAL to try different Groove Templates.
- 10) Press ENTER when you find a feel you wish to keep.

Try the following Feels:

- Select 03: Late_S to delay the snare drum.
- Select 05: Late_K to delay the kick drum.
- Select 06: 16_Lshuf for a sixteenth note shuffle

IV. Microscope Edit

Unlike the Track Edit and Quantize functions discussed above, which are used to edit large sections of a sequence, the Microscope Edit function allows you to view and edit single MIDI events. You can use Microscope Edit to create a note, program change, or controller message. You can also use Microscope Edit to fix a wrong note, change a volume setting for a part, or erase, copy, or move any MIDI event. If you press the M.Scope button you may see a screen that looks like this:

TRACK 1	↑	Note (C4)	Ch	Note	On Vel	Gate>
M.SCOPE	↓	3-01-000	1	60	80	17

The above screen displays a lot of information. Reading from left to right we can see that we are viewing Track 1 at 3-01-000 (measure 3, beat 1, clock beat 000). Next we see that this message is on MIDI channel 1 and that the message is Note number 60 (=C4). Finally, the note On Velocity (how hard the note was struck) and the Gate time (how long the note was held down) are displayed.

The Microscope Edit display will be slightly different for different types of MIDI data. Here are some examples of how other types of data will appear:

Here is a Volume message:

TRACK 1	↑	CtrlChange	Ch	CC#	Volume
M.SCOPE	↓	3-01-000	1	7	127

Here is a Program Change message:

TRACK 1	↑	ProgChang	Ch	PC#
M.SCOPE	↓	3-01-000	1	7

Normally you will use the UP and DOWN CURSOR buttons to step through the events in Microscope Mode. You can also use the BWD and FWD buttons to go to a particular bar as well as the locate function.

Create

You can create almost any type of MIDI message in this mode. Use the following procedure to create the note C4 on Track 1, MIDI channel 1, at measure 3 beat 1 (the same as the first example above):

- 1) Press SEQUENCER.
- 2) Press M.SCOPE.
- 3) Press the FWD/BWD buttons to locate to 3-01-000.

- 4) Press the 1/9 button to select Track 1.
- 5) Press EDIT so it is lit.
- 6) Press CREATE (1/9).
- 7) Use the VALUE DIAL to select NOTE and press ENTER.
- 8) CURSOR to Ch and use the VALUE DIAL to select 1.
- 9) CURSOR to Note and use the VALUE DIAL to select 60 (=C4).
- 10) CURSOR to OnVel and use the VALUE DIAL to select 80.
- 11) CURSOR to Gate and use the VALUE DIAL to select 17.
- 12) Press SEQUENCER to exit.

Move

Occasionally you may wish to move a note to another location. Use the following procedure to move the note message we just created to measure 4, beat 2:

- 1) Press M.SCOPE.
- 2) Use the UP/DOWN CURSOR buttons to select the C4 note to be moved.
- 3) Press EDIT so it is lit.
- 4) Press MOVE (3/11).
- 5) Use the CURSOR buttons and the VALUE DIAL to select 04-02-000 for the time.
- 6) Press SEQUENCER to exit.

Erase

You can also erase wrong notes:

- 1) Press M.SCOPE.
- 2) Use the UP/DOWN CURSOR buttons to select the C4 note.
- 3) Press EDIT so it is lit.
- 4) Press ERASE (2/10).
- 5) Press SEQUENCER to exit.

Note: You can use the UNDO button if you Erase the wrong note or don't like any edit you do in Microscope Mode.

V. Editing Standard MIDI Files

What are General MIDI and Standard MIDI Files?

General MIDI is a standard developed to allow music to be created on one manufacturer's instrument and to be able to be moved to another manufacturer's instrument easily. In order for an instrument to be 'GM compatible', it must have at least the following specifications:

- At least 24 voice polyphonic
- 16 part multitimbral
- 128 patches conforming to GM mapping (i.e. 1=Piano 1, 17= Organ 1, etc.)

Standard MIDI files (SMFs) are a specific format for saving and playing back music created for General MIDI devices. There are 2 formats for SMFs:

- SMF Type 0. All data is on one track.
- SMF Type 1. The MIDI data is saved in up to 16 tracks.

Roland has developed an additional format called GS which provides some additional flexibility in sounds and effects to the GM specifications. Most Standard MIDI Files that are developed from GM will play back correctly on GS instruments. Files that are developed for GS may not play back correctly on GM instruments.

Editing Standard MIDI Files

Before making changes to a SMF, you will need to understand how they are put together. The very first message in any commercially available SMF is the GM or GS reset command. This is a small system exclusive message that will reset any GM (or GS) compatible device to a very basic setup. All 16 parts (except part 10 - the drums) are set to be an Acoustic Piano sound, turned up all the way, panned to the center, and have all effects turned off. This message is usually on the first beat of track 1. Next, there will be setup information for each track that is being used in this song. This will include the patch number, volume, pan, and effects settings (if any). Following this setup information is the musical data. Most MIDI channels are available to be used for any particular sound with the following exceptions (these are conventions being used by most SMF distributors):

- MIDI Channel 2 - Bass
- MIDI Channel 4 - Melody Line

- MIDI Channel 10 - Drums

Because the XP-50 is a GM compatible instrument, it will switch into GM mode automatically when you start a SMF due to the GM reset command mentioned above. You can switch to GM mode manually if you wish:

- 1) Hold SHIFT and press PERFORMANCE.

Now let's look at how you could edit a SMF. The basic idea is to load the file into the XP-50, locate the data you wish to change, and then change it. When you are changing sounds, volume levels, panning, or effects levels, you will need to use the Microscope Edit mode. For instance, suppose you have a SMF that is using a Piano (PC#1) for part 1 (MIDI channel 1) and you would like to use an Electric Piano (PC#5). Use the following procedure:

Load the Standard MIDI File into the sequencer.

- 1) Press DISK/UTILITY.
- 2) CURSOR to 2:LOAD and press ENTER.
- 3) CURSOR to 1:SONG and press ENTER.
- 4) Use the VALUE DIAL to select the song on your disk and press ENTER.

Find the Program Change (PC) number using Microscope Edit mode:

- 1) Press M.SCOPE.
- 2) Press the 1/9 button to select Track 1.
- 3) Use the CURSOR UP/DOWN buttons to locate the message. It will look something like this:

TRACK 1	↑	ProgChang	Ch	PC#
M.SCOPE	↓	1-02-000	1	1

Now you will need to change the PC# to call up the sound you want:

- 1) CURSOR to PC# and use the VALUE DIAL to select 5.
- 2) Press SEQUENCER to exit Microscope Edit mode and press PLAY to the change you have made.

You can also use the Track Edit commands discussed in section 2 to Erase, Delete, Copy, Insert measures, or Transpose your file. Once you have made your changes, you will need to save your song back to disk:

- 1) Press DISK/UTILITY.
- 2) CURSOR to 3:SAVE and press ENTER.
- 3) CURSOR to 2:SMF-0 or 3:SMF-1 and press ENTER.
- 4) At this point you may wish to rename the song so you don't overwrite your original SMF. Use the VALUE DIAL and the CURSOR buttons to change the name and press ENTER.

VI. Controllers

With the XP-50, you can assign various parameters, such as Volume (controller 7), or Panning (controller 10) to the C1 and C2 Sliders. Once assigned, this information can be recorded to your sequence. Use the following procedure to assign the C1 Slider to Volume:

- 1) Press SYSTEM.
- 2) Press CONTROL (3/11).
- 3) Use the CURSOR UP/DOWN buttons to select the C1 ASSIGN screen.
- 4) CURSOR to Assign and use the VALUE DIAL to select CC07: VOLUME.
- 5) CURSOR to Output and use the VALUE DIAL to select INT (slider will affect only internal XP-50s sounds). Other options for Output are MIDI (Slider information sent through MIDI only) and BOTH (Slider information sent to the internal sound module and through MIDI).

Now, when you are sequencing, you can use the C1 slider to control the volume of your part and the movements will be recorded in real time. This is a great way to fade in or out parts. Any controller assigned in this way can be recorded in the sequencer. Here is a chart of useful controllers you can assign to C1 or C2:

Controller #	Function
01	Modulation
02	Breath
05	Portamento Time
07	Volume
10	Panning
64	Hold
65	Portamento On/Off
91	Reverb Depth
93	Chorus Depth

Another interesting assignment for C1 or C2 is Aftertouch. Many Patches in the XP-50 use aftertouch for various functions ranging from opening the filters to brining in other voices. Also note that you can use these same assignments for pedal you plug into the Pedal 1 or 2 input on the back of the XP-50.

VII. Effects

The XP-50 has three independent effects processors. In Patch mode, the amount of each of the three effects can be adjusted for each Tone in the Patch. In Performance mode, the amount of each of the three effects can be adjusted for each Part in the Performance. The three processors are grouped as follows:

- **EFX:** This is also known as the "Insert Effects" processor. It allows you to choose between 40 different effects including Rotary, Distortion, Compressor, and Stereo EQ. In addition to single effects, this processor includes multiple effects configured in series or parallel. Parallel effects allow you to get a different effect depending on the pan position of you Patch.
- **Reverb:** This processor contains reverb and delay effects.
- **Chorus:** This processor contains chorus and flanger effects.

Each Performance can have a completely different effects setup and each of the sixteen parts in a Performance can be routed through all three processors if desired. There are three options for the output routing of each Part:

- **MIX:** This routes the Part (patch) to the MIX L&R OUTS without the INSERT effects processor. Each Part is automatically routed through the REVERB and CHORUS processors. The amount of REVERB and CHORUS on a given Part is controlled by that Part's REVERB and CHORUS SEND level.
- **EFX:** This routes the Part (patch) to the INSERT Effects Processor which is then routed to the MIX L&R OUTS.
- **PATCH:** This routes the Part (patch) using the effects and output settings determined for each Tone as the Patch was setup in Patch mode.

Note: the amount of REVERB ad CHORUS on a given Part is controlled by the REVERB and CHORUS send levels. You can also control these levels from a sequencer with controller 91 and 93 (see previous section).

Effects Routing

Use these steps to route any Part to a particular effect:

- 1) Press PERFORM.
- 2) Press EDIT so it is lit then press EFFECTS (2/10).
- 3) Press PALETTE so it is lit.
- 4) CURSOR UP to the OUTPUT ASSIGN screen.
- 5) CURSOR to the desired Part and use the VALUE DIAL to select the routing (MIX, EFX, or PAT).
- 6) CURSOR DOWN to the OUTPUT LEVEL screen. CURSOR to the desired Part and use the VALUE DIAL to select the output level (normally 127).
- 7) CURSOR DOWN to the CHORUS SEND screen. CURSOR to the desired Part and use the VALUE DIAL to select the amount of chorus applied to it.
- 8) CURSOR DOWN to the REVERB SEND screen. CURSOR to the desired Part and use the VALUE DIAL to select the amount of reverb applied to it.
- 9) Press EXIT.

Selecting Effects

Once you've routed a Part to the EFX processor, you can choose the type of effects you would like to use:

- 1) Press EDIT so it is lit.
- 2) Press EFFECTS (2/10).
- 3) Press Palette, so it is not lit.
- 4) CURSOR UP/DOWN to select the EFX TYPE screen.
- 5) CURSOR to Type and use the VALUE DIAL to select the desired Insert effect.
- 6) CURSOR to Source and use the VALUE DIAL to select PERFORM. Keep in mind that you will only hear this effect if you have routed the output to EFX in the previous steps.
- 7) CURSOR DOWN to the PERFORM CHORUS screen. Here you can adjust the Chorus parameters to make it suitable for your Performance.
- 8) CURSOR DOWN to the PERFORM REVERB screen. Here you can select a Reverb type and adjust the various parameters as desired.

VIII. Advanced Sequencing Tips

Locate

The locate function can be used to go to any position in your song. Use the following procedure to set a locate point at measure 20:

- 1) Press SEQUENCER.
- 2) Use the BWD/FWD buttons to move to the measure 20.
- 3) Hold SHIFT and press LOCATE.
- 4) Use the VALUE DIAL to select LOC1 and press ENTER.

Now you can locate to measure 20 from anywhere in your song:

- 1) Press LOCATE.
- 2) Use the VALUE DIAL to select LOC1 and press ENTER.

Note; Locater 0 (LOC0) will always be set to the beginning of the sequence.

Muting Tracks

You can mute tracks while a song is playing back to listen to a prt by itself or to try different arrangement ideas:

- 1) Press SEQUENCER. Make sure the EDIT button is not lit.
- 2) Press PLAY. The sequence will play back.
- 3) Press the track buttons (1/9, 2/10, etc) to toggle the tracks on and off.

Setting up a Playback Loop

You can use the loop function to create a song with a section that will automatically repeat when it is played. First, you should load your song into the XP-50:

- 1) Press DISK/UTILITY.
- 2) CURSOR to 2:LOAD and press ENTER.
- 3) CURSOR to 1:SONG and press ENTER.
- 4) Use the VALUE DIAL to select the desired song and press ENTER.

Next, you will set up the loop:

- 1) Press SEQUENCER.
- 2) Press EDIT so it is lit then press LOOP (5/13).
- 3) CURSOR to Start and use the VALUE DIAL to select the point you want the loop to begin.
- 4) CURSOR to End and use the VALUE DIAL to select the point you want the loop to end.
- 5) CURSOR to Repeat and use the VALUE DIAL to select how many times you want the loop to repeat.
- 6) Press EXIT then press LOOP so it is lit.

Now save your song back to disk:

- 1) Press DISK/UTILITY.
- 2) CURSOR to 3:SAVE and press ENTER.
- 3) CURSOR to 1:SONG and press ENTER.
- 4) Press ENTER. The screen will display 'Over write?.' Press ENTER to confirm.

Your song will now play back normally to the loop point, it will then repeat as many times as specified before going on to the end.

Hint: If you set Repeat to INFINIT, the section will repeat until you turn off the LOOP button. This is a good way to manually control how long the section will play.

Using Patterns to put together a Song

You can construct a song entirely of Patterns if you wish. This is similar to drum machine style programming and allows you to easily insert sections of a song or try different arrangements. First you would create several Patterns as outlined in section 1 above. Next you would enter Step Record mode and input the Patterns in order. Here is the procedure (this is assuming you already have several Patterns recorded):

- 1) Press SEQUENCER.
- 2) Press EDIT so it is not lit.
- 3) Press M.SCOPE then press REC to enter Step Record mode.
- 4) Press PATTERN so it is lit.
- 5) Use the VALUE DIAL to select a Pattern and press ENTER. The input time will automatically move to the end of the previously input Pattern.
- 6) Continue selecting Patterns with the VALUE DIAL and pressing ENTER to create your song.
- 7) Press BWD if you make a mistake and wish to re-enter your Pattern numbers.
- 8) Press STOP when you are finished.

You can now save your song to disk and it will play back in the order you just specified. If you wish to edit the song in the future, you can use Microscope Edit mode and Create, Erase, Edit, or Move these messages.

As you can see, the XP-50 is a very powerful instrument. You can create music in a number of different ways to suit your style and preferences. You can edit your sequences in many different ways and use Patterns, Phrase tracks, or the RPS function to play them back. There are usually several ways to accomplish anything you need to do as well as a wonderful Undo function that can really save you if you make a mistake or don't like something you've just done. So relax, don't be afraid to experiment, and above all, have fun!