

# Command Station Operation Manual Addendum

For Software Version 2.00

## Contents

Check out all the great new features in this latest software release. Many of these enhancements are by popular request from the Yahoo XL-7/MP-7 user group (<http://groups.yahoo.com/group/xl7>). We do appreciate your input and hope these features inspire you to create more excellent music.

### New Performance Features

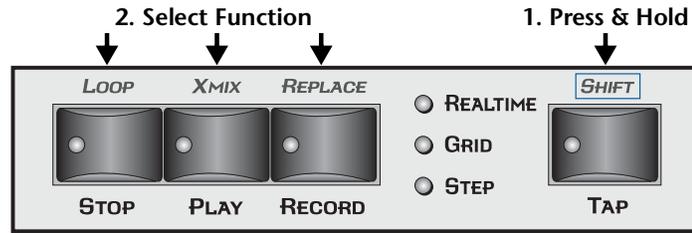
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# New Performance Features

## Loop Section



The Tap-Tempo key functions as a Shift Key to access the new features.

### In Pattern Mode

This great new feature allows you to specify a subsection of a pattern to loop. In a live performance, you can specify a temporary region to loop while the pattern is playing then turn off the loop to go on to the next section. This feature is really useful for recording and editing, since you can set the loop to a specific bar of your pattern in grid or realtime modes.



### Temporary Bar Region From:3 Thru:6



Loop Section is a temporary loop which is not saved with the pattern or multisetup. Loop Section defaults to “off” upon pattern change. While loop is enabled, the Stop LED will blink.

An interesting detail is that the loop can be set to jump across the start and end points of the pattern. For example, let’s say you’re looping an eight bar pattern. If the “From” point were set to 7 and the “Thru” point set to 2, then the pattern would play bars 7-8-1-2, 7-8-1-2, etc.

### Temporary Bar Region From:7 Thru:2



### **In Song Mode**

Loop Section works a little differently in Song mode where it simply specifies alternate start and end points. When the song reaches the endpoint, it stops and auto locates to the start point. In both pattern and song modes, RTZ still locates to the beginning of the sequence.

#### **► To Set the Temporary Bar Region from the Pattern & Song menus**

The loop points and the loop on switch can be set while the sequencer is either running or stopped.

1. Locate the **Temporary Loop Points** screen in the pattern or song menu.
2. Use the cursor buttons to move the cursor to the lower line of the display.
3. **Turn the Loop on.**
4. "From" sets the loop start point and "Thru" sets the loop end point.

#### **► Shift-Key Method to Set the Temporary Bar Region**

These hidden "power-user" features are designed to be used while the pattern or song is playing, but the loop points can be set when the sequencer is either running or stopped

##### *Setting the Loop From and Thru Points*

1. **Start the sequencer.**
2. **To set the "Loop From" point:** Hold **Tap** and hit **Select** (*to the left of the LED display*) when the pattern or song is playing, or is located to, the desired bar.
3. **To set the "Loop Thru" point:** Hold **Tap** and hit **Edit** (*to the right of the LED display*) when the pattern or song is playing, or is located to, the desired bar.

##### *Turning the Loop On and Off*

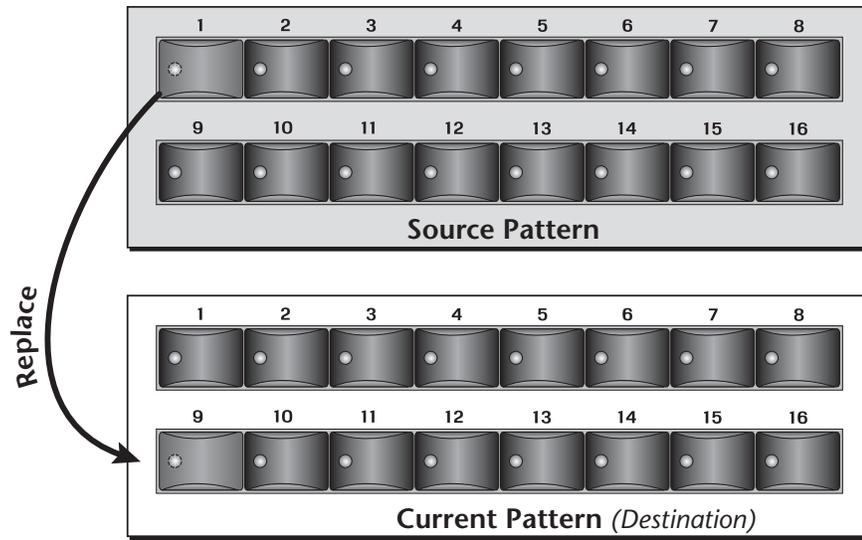
4. Hold **Tap** and hit the **Stop** button. This toggles Loop on and off.

## XMix



The Source pattern must be loaded, which generally takes about half a second, before new tracks can be replaced. The Source Pattern is loaded when the "Select Dest Track" screen appears.

This great new feature allows you to replace tracks of the currently playing pattern with tracks from another pattern. It's designed both for performance use and as a quick way to experimentally swap tracks. Tracks can be replaced with data from any other track. If you're happy with the results, you can save the current pattern to any location using the Save/Copy function.



XMix lets you replace tracks in the currently playing pattern with tracks from any other pattern while the pattern is playing.

### ► To Replace Tracks using XMix:

1. Play a pattern.
2. Press and hold **Tap**, then press **Play**. The display changes to:

**XMIX Select Source Patrn**  
**DestPat: 022<sup>0</sup> SrcPat: 022<sup>0</sup>**

3. Select the **Source Pattern** using the data entry control. (*This is the pattern you want to copy tracks from.*)
4. Press **Enter** to lock in your Source Pattern selection. The display changes to:

**XMIX Select Dest Track**  
**DestPat: 022<sup>0</sup> SrcPat: 025<sup>0</sup>**

5. The track enable LEDs will be lit on tracks which have recorded data. Muted tracks will be flashing. **Select the track** you want to replace by pressing its track button. The display changes to:

XMiX Select Source Track  
DestPat: 022<sup>0</sup> SrcPat: 025<sup>0</sup>



#### XMiX Quick Reference

1. **Hold Tap** and hit **Play**.
  2. Select the **Source Pattern**.
  3. Select the **Dest. Track**.
  4. Select the **Source Track**.
- Press **Play** to Exit XMiX.

6. The track enable LEDs will be flashing on any tracks with recorded data. **Select the new track** you want by pressing its track button. The old track in the destination pattern will instantly be replaced with the new track from the source pattern.

*To Change the Mute Settings while in XMiX mode:*

7. The Track Enable/Mute LED is normally off while in XMiX mode. Press the **Track Enable/Mute** button (lighting the LED) to switch the buttons back into mute select mode. Press the button again to go back into XMiX track select mode.

*To Replace Another Track*

8. Notice that the display is back to the one shown in step four. To replace another track, simply select the next one you want replaced. Then select the source track and it's done!

*To Select Another Source Pattern*

9. Turn the data entry control to select another source pattern. The display changes to read **Select Source Pattern**. Select a new source pattern, then press **Enter** to lock it in.

10. Select the **Destination Track**, then the **Source Track**. Done.

*To Exit XMiX Mode:*

11. Press the **Play** button.

*To Save the New Pattern*

12. The Save/Copy LED is flashing. Press the **Save/Copy** button to jump to the Save Pattern screen.

## Restart Pattern Fire Key

This is a new transport key combination. Holding **PLAY** and tapping **STOP** will instantly RTZ (Return-To-Zero) and continue playing. The stop key may be pressed many times while holding the play key to get a "stutter" sequencing effect. This also serves the purpose of instantly starting a new sequence if one is queued.



STOP PLAY

Hold **PLAY** & hit **STOP** to restart the pattern.

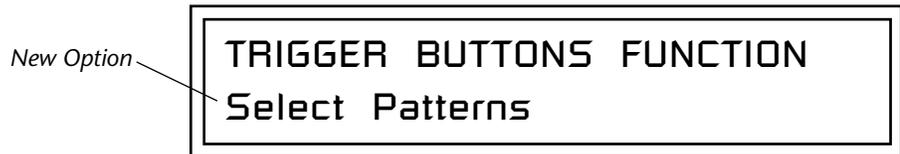
There can be a slight delay when restarting dense sequences, as there is no time to pre-queue the initial events. Simpler patterns will restart faster as there is less "pre-sequence" information to load.

## Direct Pattern Access

You can now select one of 16 patterns using the Trigger buttons. Pressing one of the trigger buttons in pattern select mode causes the programmed pattern to be armed. The armed trigger button LED will flash. The armed pattern will begin playing at the next loop. The trigger button LED will be solidly illuminated while the selected pattern is playing.

This feature can be put to good use in combination with the “Restart Pattern Fire Key” described on page 5.

Trigger buttons are programmed using the “Trigger Buttons Function” mode in the Controllers menu. A **Select Patterns** option has been added.



This new screen in the Controllers menu allows you to select a pattern for each of the 16 buttons.



One set of assignments (16 triggers to 16 patterns) will be saved per multisetup.

### ► To Program the Trigger Buttons to Select Patterns:

1. Press the **Controllers** button. Its LED will illuminate.
2. Turn the data entry control to select the **Triggers Pattern Select** screen.
3. Use the left/right cursor controls to select fields and select a pattern for each of the 16 trigger buttons.
4. Save the Multisetup if you wish to save these settings.

### ► To Select Patterns Using the Trigger Buttons:

1. Press the **Controllers** button. Its LED will illuminate.
2. Turn the data entry control to select the **Trigger Buttons Function** screen.
3. Move the cursor to the lower line, set the selection to **Select Patterns**.
4. Press **Enter**.
5. Press the **Mode** button so that the **Triggers** LED illuminates.
6. Press the **Trigger** buttons to select patterns.



## Repeat Button Works during Playback

The repeat button is now functional during playback. The quantization value, accessible from the record or record paused screen determines the repeat rate. Note that this is NOT the quantization setting located in the pattern and song edit menus. **Repeat does not function when the sequencer is stopped or paused or when the current track is muted.** In addition, any screen or mode that overrides the repeat button such as list edit precludes using realtime repeat.

### ► To Use the Repeat Button during Pattern or Song Playback:

1. From song or pattern mode press the **Record** button. The following screen appears:

T01	REC	Ln:04	Bar: 01:1
Quan: 16	Met: off	CntIn: 0	

2. Select the desired quantization (repeat) value.
3. Press **Stop** to exit record mode.
4. Select the desired pattern or song.
5. Press **Play**.
6. Press the **Repeat** button illuminating the LED.
7. **Play the pads or keyboard.** Notes will repeat at the selected quantization rate.



*Using the Repeat button, even in play mode, causes the current pattern to be dirtied (asterisk showing). Although nothing is actually recorded in the current pattern, this could cause an unsaved pattern to be wiped out.*

## Mute Hold

Track mutes can be held from pattern to pattern by holding the Tap button while pressing Enter so select the next pattern. This live performance feature allows you to keep the song at the same level of complexity when changing patterns.

**While the Pattern is Playing:**



TAP

Hold **TAP** & hit **ENTER** to hold the Mute settings.



HOME/ENTER

### ► To Use the Mute Hold feature while a Pattern is Playing:

1. Play a pattern.
2. Change the track mutes as desired.
3. Select a new pattern using the data entry control.
4. Hold the Tap button while pressing Enter.
5. The track mute settings of the previous pattern will remain in effect.

**While the Pattern is Stopped:**



TAP

Hold **TAP** while selecting a new Pattern with the **Data Entry Control** to hold the Mute settings.



### ► To Use Mute Hold while a Pattern is Stopped:

1. Select a pattern.
2. Change the track mutes as desired.
3. Hold the Tap button and select a new pattern using the data entry control.
4. The track mute settings of the previous pattern will remain in effect.

**Direct Pattern Access:**



TAP

Hold **TAP** while selecting a new Pattern with the **Trigger Buttons** to hold the Mute settings.



### ► To Use Mute Hold in conjunction with Direct Pattern Access:

1. Follow the instructions on page 6 to set up direct pattern access.
2. Select a pattern.
3. Change the track mutes as desired.
4. Hold the Tap button while selecting a new pattern using the trigger buttons. (*Triggers must be selected in the Command Function section.*)
5. The track mute settings of the previous pattern will remain in effect.

## Key-Up Layer

The synthesizer layers can now be programmed to play when a key is *Released* instead of when it is pressed. This feature has a multitude of applications, including the simulation of key-up sounds of a harpsichord or piano damper pedal noise. You can also create complex sounds with a different instrument on the release. The volume of a key-up layer could be controlled using a pedal or wheel to articulate controllable guitar squeaks or other sounds.

The envelopes play through all six stages on a key-up layer, except that there is no sustain. The key sustain is ignored so that the sound won't just keep sustaining forever when a key is released, but otherwise the envelopes operate normally. Depending on the Key-up sound, you may have to adjust the envelope settings for the desired response. If you can't hear the key-up layer, it usually means that the Decay 2 Rate is too short.



Key up layers interact with the sustain cord destination. For example, if a note is played with the sustain pedal held, the release layer will sound when the sustain pedal is released.

**The Key-up feature cannot be used together with Solo mode.** If solo mode is selected, the key-up trigger action will be disabled. The Key-up feature CAN be used in conjunction with Assign Group, Mono if you want to limit the polyphony of the key-up channel to a single channel. This is especially useful when simulating damper pedal sounds.

The Key-up layer responds to Key-down velocity just like a normal layer. This is done to facilitate layering with a Key-down layer. (i.e. when the Key-down layer is softer, the Key-up layer will also be softer.)

### ► To Program a Key-Up Layer

1. Select a preset and press the **Preset Edit** button.
2. Scroll to the **Instrument** screen and select a sound for your Key-up layer. (For example, program Layer 1 to be your primary sound and Layer 2 your key-up sound.)
3. Scroll to the **Sound Start** screen shown above using the data entry control.
4. Select the layer of your key-up sound.
5. Move the cursor to the **Delay** field and turn the data entry control counter-clockwise until the display changes to read "**key-up**" as shown above.
6. **Play the keyboard** or keypads. You should now hear your key-up sound when you release the key.

## New Sequencer Features

### *First Note Record*

Dialing the count-in field past 2 displays a quarter note icon, indicating first note record. This mode could also be called “First Event Record” since recording actually begins when the first event of any type is received.



*New Option*

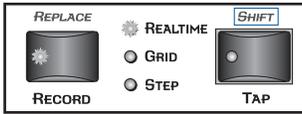
This feature has several modes of operation depending on the way you are recording.

- If paused in record mode, the sequencer automatically starts rolling when a recordable event is received.
- First note record mode also changes the way punch-in operations are handled in “Replace Record” mode. These new modes are described in the next section.

#### ► **To Record a Pattern using First Note Record:**

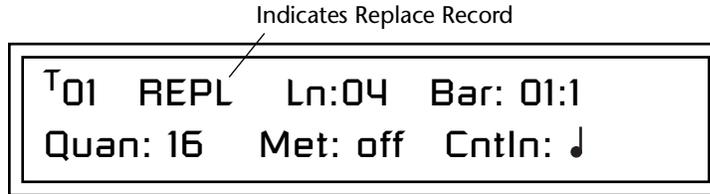
1. Select an “Empty Sequence”.
2. Press the **Preset** button, select a preset, then press the **Pattern** button.
3. Press the **Record** button. The screen shown above appears.
4. Move the cursor to the **CntIn** field and turn the data entry control clockwise until the quarter note appears. The Record LED now begins flashing to indicate that recording will begin when the first event is received.
5. Set up the track length, quantization and metronome as desired.
6. Recording will begin when you play a note or turn a controller knob.

## Replace Record



Replace record is a new realtime record mode that selectively overwrites track data upon recording new data over it. Replace-Record was designed to work in conjunction with 1st Note Record.

Press and hold Tap and press the Record button when in real-time record mode. “REC+” in the display changes to read “REPL”, indicating that you are now in Replace Record mode.



- REC+** ----- New data is added to the existing track data.
- REPL** ----- New data overwrites exiting track data.

Replace record works differently depending on whether the first-note record status is on or off. See the chart below.

### Record LED

- Solid - - - - Erasing Data
- Flashing - - Rec. Armed

Mode	First Note Record On	First Note Record Off
<b>Start Point (Punch In)</b>	Data will be replaced from the moment you play any sort of MIDI event that the sequencer records; note, controller data, etc.	Data will be erased (and replaced) anytime its start time is passed while replace record is active.
<b>End Point (Punch Out)</b>	Data will be erased until the earlier of the following: <b>A:</b> The pattern reaches the loop point (patterns) or end point (songs). At this point, the transport automatically goes back into “record armed” mode (unless no data was played). <b>B:</b> You punch out, either by pressing STOP or REC.	Data will be erased until the earlier of the following: <b>A:</b> The pattern reaches the loop point (patterns) or end point (songs). At this point, the transport automatically punches out (unless no data was played). <b>B:</b> You punch out, either by pressing STOP or REC.
<b>If No Data is Recorded During a Loop</b>	The transport stays in “record armed” mode until data is played, even over the loop point. If you punch out before recording anything, no data is erased.	If you don’t play any data during a pass, the record mode will stay active over the loop. If you manually punch out without recording anything, data that was in the region of recording will be erased. Once you play data, the next loop point will automatically punch out.
<b>Playing Existing Data</b>	The sequencer plays existing notes in the track until the first data is played.	The sequencer will not play any data on the track to be recorded.

## Record Mutes in Song Mode

You can now record the track mute buttons in song mode. Track Mutes can be enabled or disabled anywhere in the song by simply selecting or deselecting them in record mode. Track mute commands can be erased or modified in the Song Event List Editor.

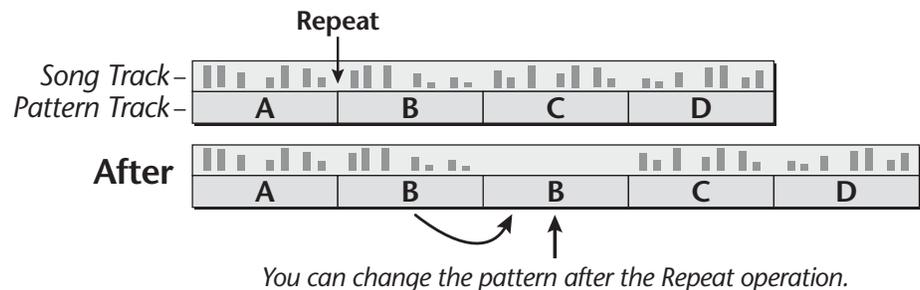
## Song Mode Insert Enhancement (Step Repeat)

Currently, song mode insert is more of a “split”. You must go to a bar in the middle of a pattern step and divide the step in two. No events are moved.

This enhancement occurs only if you **press Repeat while at a step** (as opposed to in the middle of a step). In this case, the current step will be duplicated and all events (including both step events and linear track events) will be slid forward to accommodate the insertion of the new step (with length equal to the duplicated step). Note that Delete still functions as is, only deleting the step event, not any data or time.

### Step Repeat

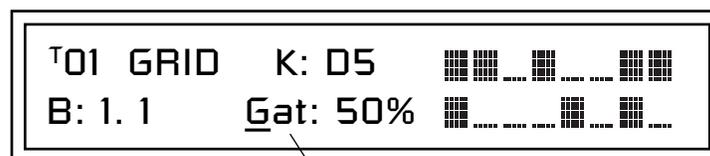
If you press *Repeat* at a pattern change event, the *Pattern Play Event* is duplicated and the *linear track information* is pushed forward in time.



## Grid Record Gate

You can now specify gate times for each of the 16 steps in Grid Edit mode. Depending on the preset envelope settings, the gate time can have a considerable effect on the sound. (*The envelope generator release phase begins when the gate ends.*)

The **Vel:** field label on the GRID screen is now editable, allowing you to select Gate. You can also toggle between Gate and Velocity settings by pressing the **Controller Knob Select Button** when in grid edit. When gate is selected, the graphic bar icons indicate the gate time percentage for all 16 steps instead of velocity. **In addition, the 16 controller knobs can now edit the Gate or Velocity setting.** The default gate setting is 80%.



New Option

## Grid Record Knob Input

## Explode/Combine Tracks



Combine allows you to free up tracks by converting multiple tracks into a single multichannel track.

The new multichannel track can be routed externally or can control MIDI channels 1B-16B.

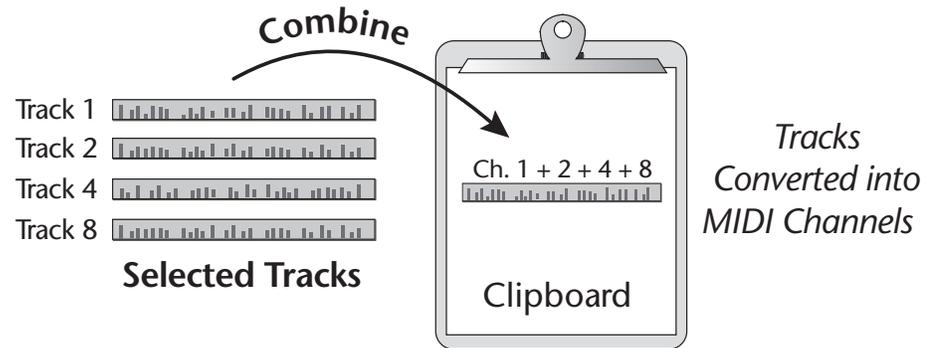
You can now edit Grid Edit velocity level and gate time using the 16 controller knobs. **Pressing the knob mode button automatically switches the velocity/gate field when in Grid Edit.**

Selecting 0 gate or 0 velocity erases the note. Setting the gate or velocity to anything other than 0 turns on the note.

These new functions facilitate the interchange between single multi-channel tracks and multiple single-channel tracks. Both of these functions use the clipboard as the intermediary step in the conversion.

### Combine Tracks

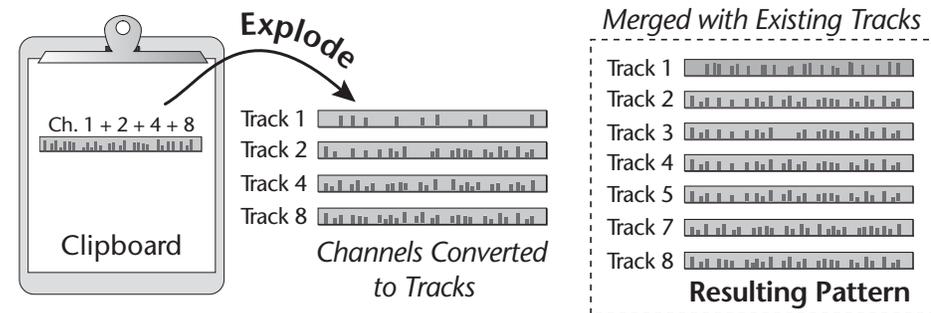
This function takes all selected tracks (*selected by pressing the flashing mute keys*), combines them into a single multichannel track and transfers them to the clipboard, overwriting any previous clipboard data.



Note that any A/B channel routing will be lost, although the 16 channel assignments will be preserved. Merging 02A, 04B, 13A will result in channel 2, 4, and 13 transmitting on the port (A or B) already assigned to the track that you paste into.

### Explode Tracks

This function takes multichannel data on the clipboard and divides it up by MIDI channel over all existing tracks, mixing with any data already there. Channel 1 will go to track 1, channel 2 to track 2, etc. This is the case even if the track routings do not match. (i.e. if track 7 is assigned to channel 3).



► **To Combine Multiple Tracks into a Single Multitrack:**

1. **Select the pattern** you wish to edit and press the **Pattern Edit** button.
2. Scroll to the **Combine Selected Tracks To Clipboard** screen shown below using the data entry control.

COMBINE SELECTED TRACKS  
TO CLIPBOARD: do it

3. Move the cursor to the lower line of the display using either the left or right cursor key and press **Enter**. The following screen appears.

SELECT TRACKS  
Press Enter When Done . . .

4. Select the tracks you wish to combine using the flashing Track Enable/Mute buttons.
5. Press **Enter**. The selected tracks will be copied to the clipboard.
6. **Set the destination track to Multi A or B.** (*Channel Assign screen.*)
7. Use the **Paste Clipboard To Track** function to paste the multichannel track into the existing pattern or into another pattern.
8. If you're pasting to another sequence use the **Apply Clipboard Settings** function (page 16) to copy the clipboard's volume, pan, preset, arpeggiator status, and send bus assignments to the selected track.



*If the destination track isn't set to Multi A or B, the track will play back rechannelized onto a single MIDI channel. Select MultiA or MultiB to play back multiple MIDI channels on a track.*

► **To Explode the Clipboard Data into Multiple Tracks:**

1. **Select the pattern** you wish to edit.
2. Press the **Pattern Edit** button.
3. Scroll to the **Explode Clipboard To Tracks** screen shown below using the data entry control.

EXPLODE CLIPBOARD TO  
TRACKS: do it

4. Move the cursor to the lower line of the display using either the left or right cursor key and press **Enter**. The following screen appears.

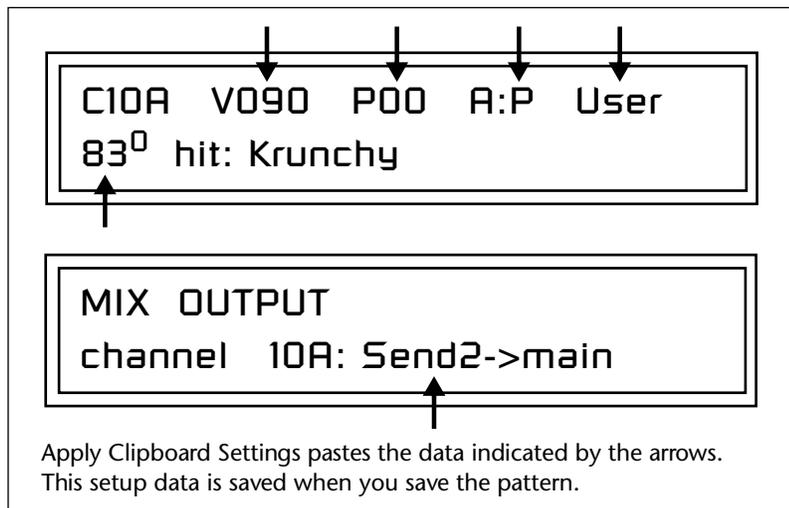
- - PERFORM OPERATION? - -  
Enter=Yes Other=Cancel

## Apply Clipboard Settings

5. Press **Enter**. The clipboard data will be divided up and merged with exiting pattern tracks.

This function copies the volume, pan, preset, arp status, and send bus assignments (*Global Mix Output*) from the clipboard to the selected track. If the clipboard contains multichannel data, the settings will be applied for each channel.

This feature is useful when you copy and paste a track and want the preset settings to be copied and pasted as well. This feature can also be used if you want to record a new track with the same preset settings on another track.



### ► To Apply Clipboard Preset Settings:

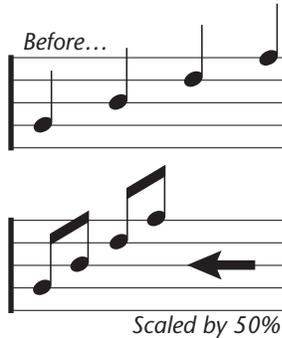
1. Copy a track to the clipboard.
2. Scroll to the **Apply Clipboard Settings** screen. (*One screen after Paste*)



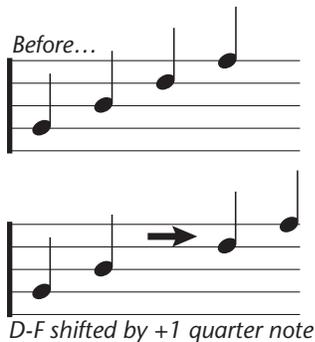
3. Move the cursor to the lower line and **select the track** you want the setup data copied to.
4. Press **Enter** to apply the setup data to the selected track.

## Scale/Shift Start Times

### Scale Start Time



### Shift Start Time



This filter allows you to either scale (multiply by a value) or shift (add a value to) the start times of notes. This effectively shortens or lengthens the selected section without changing the tempo. The scale function is performed before the shift value is added.

**Scale** - Multiplies all note start times by a percentage from 0% to 800%. Scaling by 100% would leave all note start times untouched. Scaling by 50% would shorten the section by one half.

**Shift** - Adds or subtracts a specific offset in quarter notes and ticks to note-on events in the selected tracks.

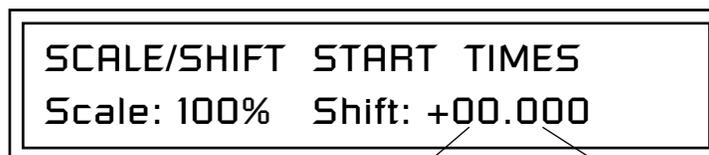
Events shifted past the end of the sequence will be deleted on save only. That is, if you change your mind, you can slide events back into the playing loop. Events shifted earlier than tick 0 for notes and tick 1 for events will clip at that tick, possibly bunching up events.

### Tips & Tricks

- In addition to the percentages, certain exact ratios are provided and are displayed as fractions. (2/3, 4/3, 5/3, 8/3, 10/3, 20/3) These ratios are useful for changing between duplets and triplets.
- Subtracting a few ticks with the shift function can be used to “push” the beat giving the music a sense of urgency. Adding a few ticks can impart a more laid back feel.
- Since a single note can be selected (cursor down to the key range field and play the key), individual drums can be shifted forward or back.
- The Shift feature can be used to compensate for a preset with a slow attack. Simply shift the track earlier (negative value) a little so that your pad or string swell comes in right on the beat.

### ► To Scale or Shift Note Start Times:

1. Select the **pattern** you wish to edit.
2. Press the **Pattern Edit** button.
3. Scroll to the **Scale/Shift Start Times** screen shown below using the data entry control.



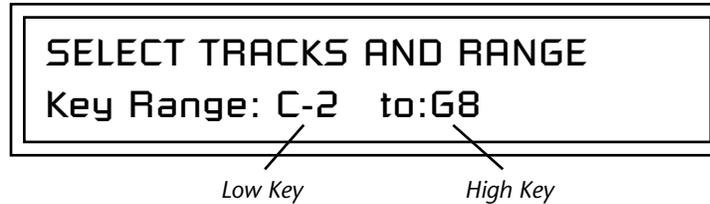
Quarter Notes

Ticks

4. Select the **amount** of note start time **scaling** or **shift** (offset). The Home/Enter LED will be flashing once the cursor is moved to the lower line of the display.

 **Tip:** To shift all notes forward or back by a particular amount, set *Scale* to 100%, (this zeros the value) then set *Shift* to the desired amount.

5. Press **Enter**. The screen shown below appears and the track buttons will be flashing to remind you to select the tracks you want to edit.



6. Select the **Track(s)** you wish to Scale or Shift using the Track Enable/Mute buttons.
7. **Select a key range** for filtering. The default setting is all keys. Keys can be selected from the keyboard when the cursor is on the key fields.
8. Press **Enter** to scale/shift the note start times. Press any other menu button to **Cancel** the operation.

Pressing the increment track button from 16 will wrap around to 1, and pressing the decrement key from 1 will wrap back to 16. Channel selection now works in the same way. Note that this does not affect any other way of selecting track or channel (i.e. selecting track via the encoder does not wrap around).

## Track Select Wraparound

## Track Select Shift Key

In Pattern mode, tracks can now be directly selected in mute mode or grid edit by holding **Tap Tempo** and pressing one of the **Mute** buttons. This eliminates having to increment up and down using the Track/Channel buttons.

In Song mode, holding **Tap** and pressing one of the **Mute** buttons selects the same numbered MIDI channel.

### ► To Select Tracks using the Tap Shift-Key

1. Be in **pattern mode** (rec or play) or in **grid edit mode**.
2. Press and hold **Tap**.
3. Press the **Track Enable/Mute** button corresponding to the track you wish to select.

## Quick Track Erase

This feature works except when in list edit, grid edit or step edit. It erases all events on a track, even while recording. Be careful when you use this feature, since there is no undo.

### ► To Quick Erase a Track:

1. Hold the **Erase** button.
2. Press the **Track Mute** button of the track you want to erase.

### *Compact Flash Now!*

This is a new option added to the Save/Copy menu which allows you to manually compact Flash RAM.

Before the explanation of this feature, a little background. The Command Stations use non-volatile “Flash” memory for sequences, presets and multi-setups. As you make changes to memory by recording, saving, etc., the flash memory becomes fragmented, with small blocks of memory scattered around the address space. When the Flash RAM becomes too fragmented to perform efficiently, the Command Station automatically “defragments” the Flash RAM, compacting it into a single continuous block. The compaction process can take several minutes, which can be an extremely long time if you happen to be on stage when the Command Station decides that it’s time to compact.

This new feature allows you to manually compact Flash RAM before a performance to avoid the annoying pause in operation at a critical moment. Because Flash RAM has a finite number of write operations before it goes bad, the Command Station will not allow you to manually compact when there is more than 100K bytes of compacted memory remaining.

**MANUALLY COMPACT NOW**  
**not for everyday use !!**

#### ► To Manually Compact Flash RAM

1. Press the **Save/Copy** menu button.
2. **Move the cursor** to the bottom line on the display.
3. Press the **Home/Enter** button.

## Other Changes & Bug Fixes

- **New Quantize values added** - You can now select quantize values of 64th note, 128th note and 64th note triplet. These new values are available for input quantize, pattern edit quantize, step edit, and realtime repeat.
- **Save picks up Initial Settings if Stopped** - If the sequencer is stopped, pressing save will automatically do an RTZ so as to pick up initial settings that the user hasn't changed. Saving while playing will have no change in behavior.
- **Context Sensitive Save** - Save now offers to save patterns, presets & songs that have been edited before offering to save un-edited items. For example, with an edited pattern and a un-edited preset, while in the preset view screen, pressing Save jumps to pattern save, not preset save.
- **Arp Extension Interval Bug Fixed** - When switching presets, arp extension interval is now correctly loaded.
- **Song to Pattern Bug Fixed** - Switching from Song to Pattern mode while playing no longer crashes the machine.
- **Temporary Settings Override** - Making a change to Preset, Mix, Arp, Volume & Pan from the front panel disables that initial setting for that track until the next pattern is selected.
- **Notes held longer than the pattern length automatically get clipped**- Formerly while recording, if you held a note longer than the length of the pattern, the note would be improperly recorded. This problem has now been corrected.
- **Sustain Pedal Tracking** - The sequencer now keeps track of all the cc#64 sustain pedal messages and remembers to turn them off when a track is muted or when the sequencer stops.  
Before this enhancement, external gear would continue to sustain notes on mutes and when the sequencer stopped. The internal synth would continue to sustain notes on mutes.

## Manual Additions

### Arp/Riff MIDI Out

These two features, located in the Arpeggiator menu, were inadvertently omitted from the manual and so we have included them here.

This screen allows you to set whether or not arpeggiator and/or riff data is transmitted out the MIDI ports for all channels with arps on. The options are: don't transmit, transmit arps, transmit riff, or transmit both.

ARP / RIFF MIDI OUT  
transmit arps

#### ► To Transmit Arpeggiator Data to another MIDI Device:

1. Set Arp/Riff MIDI Out (above) to **Transmit Arps** or **Transmit Both**.
2. Select an **arp: preset**.
3. If you don't want the internal preset to sound, create a "dummy" preset with no instruments selected and the arpeggiator turned on. **Name** and **Save** this preset.
4. Connect MIDI Out to MIDI In on your external MIDI synth. (*Channels 1A-16A go out the MIDI A port. Channels 1B-16B go out the MIDI B port.*)
5. Go into the MIDI menu and turn "**Rechannelize Input**" **Off**. This prevents double notes from sounding on the sustained pads.
6. **Name and Save the Multisetup** if you want to keep the setup.

 *The arpeggiator is part of the preset. This is why a "dummy" preset must be used.*

### MIDI Song Start

The arpeggiator, beats and the sequencer are all synchronized to the same clock (internal or MIDI) Although the arp or beats notes are synced to the clock, they may still be out of sync with the downbeat or first note of the sequence. This feature allows the arps, beats or both, to "resync" to the first beat of the sequence when the sequencer is started. This feature also works when receiving MIDI Song Start from an external source.

As an example, suppose you are playing the arps live as an intro to your song. When you press play, the sequencer immediately starts, but your arp pattern will probably not be on the beat with the sequence. With resync on, the arps stay in perfect sync with the first beat of the sequence.

 *If you're using the internal sequencer, it's probably best to leave this parameter set to "resync arps & riffs".*

MIDI SONG START  
resyncs arps & riffs



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