Roland™

MV-8000

Workshop



Automation

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MVWS13

About the MV-8000 Workshop Series

Roland's MV-8000 Production Studio is packed with features for making music. It's a heavy-duty sampler that can do all sorts of things with sounds you sample or import. Its sequencer has 136 tracks for MIDI sequencing and playing back audio, and its set of editing tools is deep. It's a great box for performing—using its pads or an attached MIDI keyboard—and, of course, it can even burn a CD of your final master mix.

Each MV-8000 Workshop Series booklet focuses on one MV-8000 topic, and is intended as a companion to your *MV-8000 Owner's Manuals*.

This booklet requires MV-8000 O.S. Version 3.5 or higher. You can download the latest O.S. from *www.RolandUS.com*.

About This Booklet

With automation, the MV-8000 memorizes and plays back mix settings for you, helping you create the perfect mix for a song or pattern. This booklet explains how to use the MV-8000's automation features.

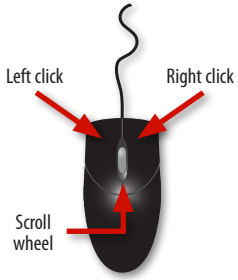
The Buttons, the LCD, or a VGA?

On the MV-8000, you can work on the built-in LCD or on an optional color VGA monitor. You can use the MV-8000's front-panel controls, or a mouse on your VGA screen. No matter how you like to work, there's an easy way to get things done.

Probably the best idea is to work primarily with a mouse on a VGA, using the MV-8000's buttons to quickly get in and out of MV-8000 screens. The procedures in this booklet typically assume you'll be working this way.

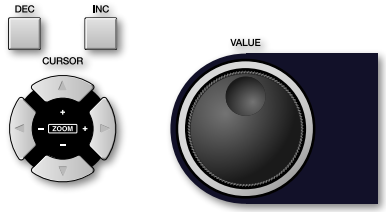
If you're not, don't worry, because the VGA windows and LCD screens are essentially the same. There are clickable VGA icons for all of the MV-8000's buttons. You can also press an onscreen button by clicking your mouse or by pressing an F button on the MV-8000. The main difference has to do with how you deal with settings—or "parameters"—and how you select objects.

If you're using a mouse:



You select parameters and objects with a left click. You change the selected parameter's value by turning the scroll wheel. You can display an object's menu by right-clicking the object.

If you're using the MV-8000's buttons:



You select parameters and objects with the ◀, ▶, ▲, and ▼ CURSOR buttons. Change a selected parameter's value by turning the VALUE dial or by pressing DEC and INC.

Understanding the Symbols in This Booklet

Throughout this booklet, you'll come across information that deserves special attention—that's the reason it's labeled with one of the following symbols.

A note is something that adds information about the topic at hand.

A tip offers suggestions for using the feature being discussed.

Warnings contain important information that can help you avoid possible damage to your equipment, your data, or yourself.

Automation Basics

What Is Automation?

When you mix a song or pattern, there are a lot of things to get right. You've got to figure out:

- where to turn tracks off or on as the music plays
- your mixer settings for the whole song or pattern, whether they stay the same or change as the music plays
- any changes you want to make to the sound of your patches as the music plays
- your effects.

All of this can add up to a quite a bit of stuff to remember and do. With automation, though, the MV-8000 remembers and does everything for you so that:

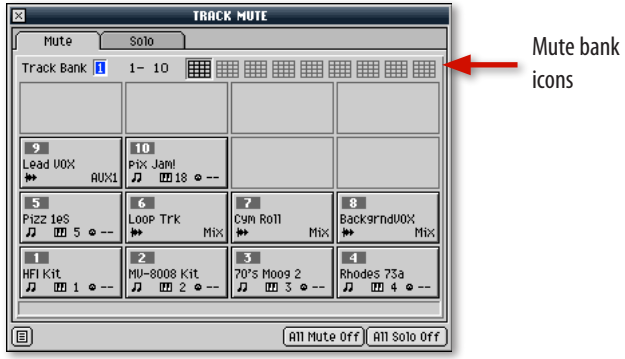
- changes that occur as the music plays happen perfectly every time, automatically.
- as you work on a mix, you can automate things bit-by-bit, slowly building up the perfect mix at your own pace.
- if you need to take a break, everything is right there when you come back, days, months, or even years later.

Automating Track Mutes

Here's how to automate the way you want tracks to turn off or on as a song or pattern plays:

1. On the SEQUENCE or PATTERN screen, hold down SHIFT, and then press the PAD BANKS button to display the TRACK MUTE window.





Each track in your song or pattern is assigned to a pad in the TRACK MUTE window.

If your song or pattern has more than 16 tracks, the track you want may be assigned to a pad in another mute bank. To display a different mute bank:

- set the Track Bank value as desired, or
- click the mute bank icon for the bank you want.

If there are enough pads for all of your tracks in a single mute bank—as shown above—the Track Bank value becomes unchangeable, and the other banks' icons are grayed-out, as they are here.

You can change mute banks as you record mute automation if you need to.

2. Use the TOP or MEAS buttons to go to the place in the song where you want to start recording automation.
3. Hit the RECORD button to display the RECORDING PARAMETER (MUTE CONTROL) window, and then set Rec Mode to Replace.



To lock your track muting and un-muting to the beat, turn on the Input Quantize parameter. In most cases, the ♪ (120) setting will work. If you don't like what you get, try other Input Quantize values as you re-record your automation.

4. Hit PLAY to begin recording automation data.
5. As the song plays, press the pads as desired to mute and un-mute tracks—when a track is muted, its onscreen pad is darkened.

   Your moves are recorded on the Mute Control Track belonging to your song or pattern.
6. Press STOP when you're done.



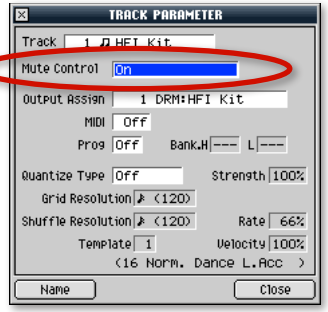
To immediately re-do the automation data you've just recorded, hit UNDO, and then repeat Steps 2-7. You can also re-do your automation at a later time by performing Steps 1-7 again.

Playing Back Automated Track Mutes

Turning a Track's Mute Automation On or Off

You can turn off the playback of mute automation for individual tracks. Here's how:

1. On the SEQUENCE or PATTERN screen, select a track whose mute automation you want to turn off or on.
2. Click Track Param, and then select Mute Control, as shown here.

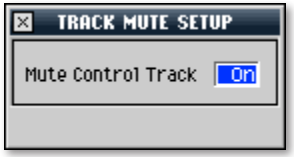


3. Set Mute Control to:
   - *On*—to play back the track's mute automation.
   - *Off*—to disable the track's mute automation.

Turning All Track Mute Automation On or Off

To disable the playback of all mute automation, turn off the Mute Control Track:

1. On the SEQUENCE or PATTERN screen, hold down SHIFT and press PAD BANKS.
2. Press MENU, and then select Track Mute Setup to display the TRACK MUTE SETUP window.



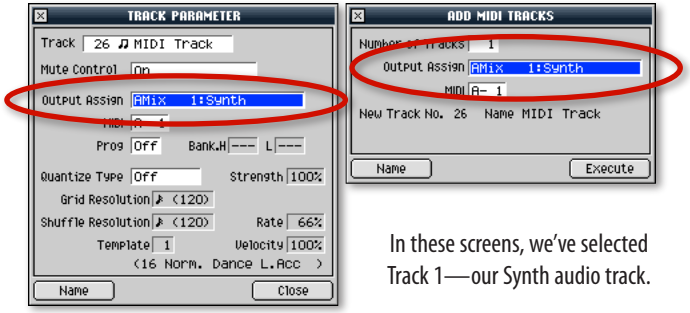
3. Set Mute Control Track to:
   - *Off*—to turn off all mute automation.
   - *On*—to play back mute automation.

Automating an Audio Track's Level

You automate an audio track's level by recording changes you make on the MIXER screen. The automation data is recorded onto its own MIDI track.

Before you begin automating, we recommend naming your audio track on the SEQUENCE screen—this makes it easier to find its channel strip on the MIXER screen later. On a VGA, double-click the track's name, or on the internal LCD, hit MENU and select Track Name...

1. On the SEQUENCE or PATTERN screen:
   - *select an unused MIDI track*—and click Track Param.
   - *create a new MIDI track*—by right-clicking the track list and selecting Add MIDI Tracks...
2. In the TRACK PARAMETER or ADD MIDI TRACKS window, set Output Assign to the AMix value that contains the audio track's number and name.



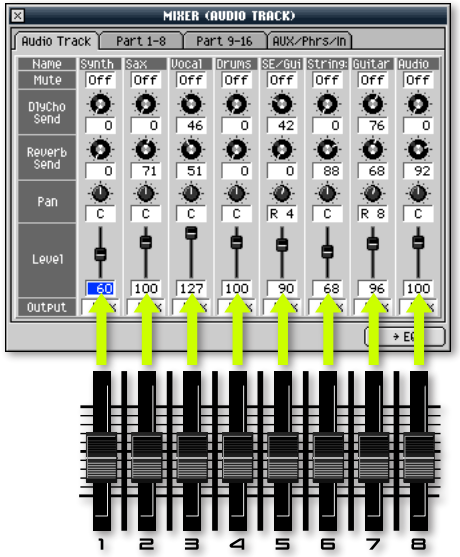
In these screens, we've selected Track 1—our Synth audio track.

3. Click Close in the TRACK PARAMETER window, or click Execute in the ADD MIDI TRACKS window.

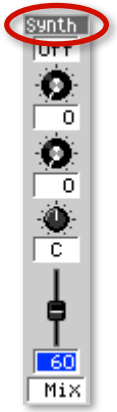
We recommend naming your automation MIDI track right away to avoid confusion later.

4. Press MIXER and click Audio Track at the top of the window to display the MIXER (AUDIO TRACK) screen.

Each of the eight audio tracks you can have in a song has a slider for automating its level.



5. Locate your audio track's channel strip by its name—you'll find the audio track's name at the top of one of the strips—and then move its slider to see the audio track's level change. When you're done, set the level back to the desired value.



If the slider doesn't work, make sure the ASSIGNABLE SLIDER button isn't lit. If it is, press it once to turn it off.

6. Use the TOP or MEAS buttons to go to the place in the song where you want to start recording automation.
7. Hit the RECORD button, and then set Rec Mode to Replace. (You can change any other settings in this window as desired.)

8. Hit PLAY to begin recording automation data.
9. As the song plays, move the audio track's slider as desired.
10. Press STOP when you're done.

To immediately re-do the automation data you've just recorded, hit UNDO, and then repeat Steps 6-10. You can also re-do your automation at a later time by performing Steps 1-10 again.

You can actually automate *any* of the audio track's parameters using the VALUE dial. In Step 5, select the current value of the parameter you want to automate, and in Step 9, use the VALUE dial to make your changes.

Automating an Internal MIDI Track's Level

Here's how to automate the level of a MIDI track when it's playing an internal MV-8000 patch.

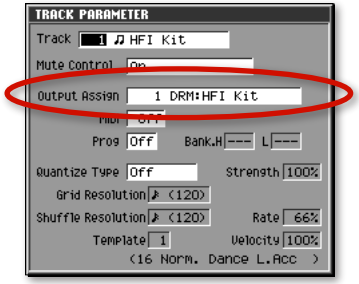
Each internal MV-8000 patch is played through one of 16 "parts." When you automate a MIDI track that's playing an internal patch, you're actually automating its part.

Any MIDI track can play any part, so you have to begin by figuring out which part the track is playing.

- *If you're working on a VGA*—select the MIDI track and take a look at the Out Part parameter above the tracks. It'll tell you the part the track's playing.



- *If you're working on the built-in LCD*—press ▼ or ▲ to select the MIDI track, and then press F2 (Track Param). Output Assign shows the part the track is playing.

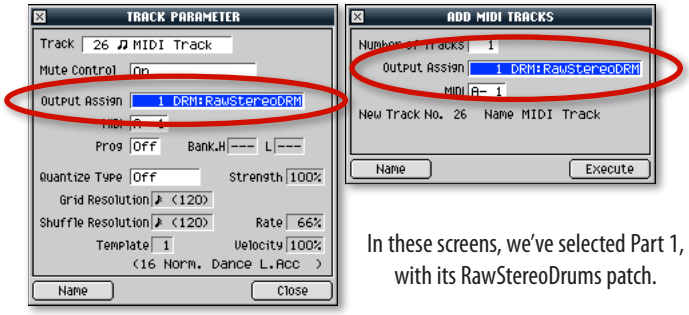


Once you've figured out your part, you're ready to go.

1. On the SEQUENCE or PATTERN screen:
   - *select an unused MIDI track*—and click Track Param.
   - *create a new MIDI track*—by right-clicking the track list and selecting Add MIDI Tracks...

MIDI track automation is recorded on its own, separate MIDI track.

2. In the TRACK PARAMETER or ADD MIDI TRACKS window, set Output Assign to the part you want to automate.

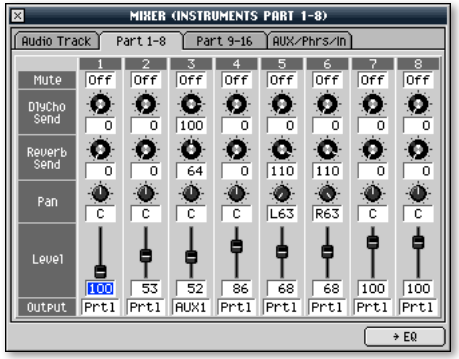


In these screens, we've selected Part 1, with its RawStereoDrums patch.

3. Click Close in the TRACK PARAMETER window, or click Execute in the ADD MIDI TRACKS window.

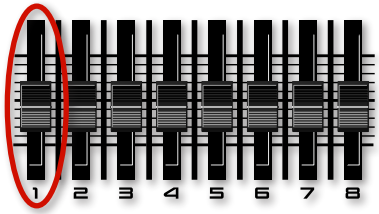
We recommend naming your automation MIDI track right away to avoid confusion later.

4. Press MIXER and F2 (Part 1-8) or F3 (Part 9-16) to display the part you're automating.





5. Press ASSIGNABLE SLIDER to it lights.
6. Use the TOP or MEAS buttons to go to the place in the song where you want to start recording automation.
7. Hit the RECORD button, and then set Rec Mode to Replace. (You can change any other settings in this window as desired.)
8. Hit PLAY to begin recording automation data.
9. As the song plays, move the first slider to automate the desired level changes.



If your slider moves are changing the level of more stuff than you expect, see "Lotsa Tracks, One Part," below.

10. Press STOP when you're done.

To immediately re-do the automation data you've just recorded, hit UNDO, and then repeat Steps 6-10. You can also re-do your automation at a later time by performing Steps 1-10 again.

You can automate other aspects of a part using the sliders. To learn more about using the assignable sliders when you're automating MIDI tracks, see "MIDI Track Automation and the Sliders" on Page 11.

Lotsa Tracks, One Part

As you probably know, you can play the same part from as many MIDI tracks as you like. While handy, this can cause confusion when you're automating.

Let's say you record a bass drum, snare, and hi-hat on separate tracks, and they're all playing the same part's patch. If you try to automate level changes throughout the song for, let's say, the hi-hat, you'll wind up changing the level for the whole kit instead. This is because—aha!—automation applies to the part, and that means the whole patch at once.

The solution is to assign the same patch to multiple parts, so you can automate each track's drum kit sound individually.

Automating an External MIDI Track's Level



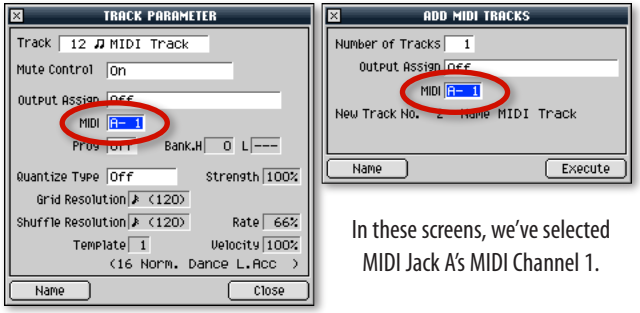
To learn about using external MIDI devices with the MV-8000, check out the *Working with External MIDI Instruments* MV-8000 Workshop booklet.

Here's how to automate external sounds played by an MV-8000 MIDI track.

1. On the SEQUENCE or PATTERN screen:
   - *select an unused MIDI track*—and click Track Param.
   - *create a new MIDI track*—by right-clicking the track list and selecting Add MIDI Tracks...

MIDI track automation is recorded on its own, separate MIDI track.

2. In the TRACK PARAMETER or ADD MIDI TRACKS window, set the MIDI parameter to the MIDI jack and channel number for the external sound the MIDI track's playing.



In these screens, we've selected MIDI Jack A's MIDI Channel 1.

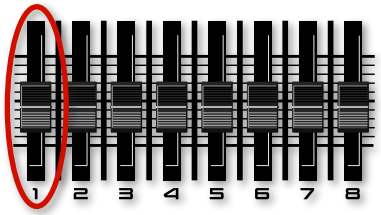
3. Click Close in the TRACK PARAMETER window, or click Execute in the ADD MIDI TRACKS window.

We recommend naming your automation MIDI track right away to avoid confusion later.

4. Press ASSIGNABLE SLIDER to it lights.



5. Use the TOP or MEAS buttons to go to the place in the song where you want to start recording automation.
6. Hit the RECORD button, and then set Rec Mode to Replace. (You can change any other settings in this window as desired.)
7. Hit PLAY to begin recording automation data.
8. As the song plays, move the first slider to automate the desired level changes.

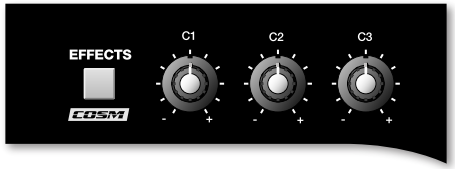


9. Press STOP when you're done.

To immediately re-do the automation data you've just recorded, hit UNDO, and then repeat Steps 5-9. You can also re-do your automation at a later time by performing Steps 1-9 above again.

You can automate other aspects of a part using the sliders. To learn more about using the assignable sliders when you're automating MIDI tracks, see "MIDI Track Automation and the Sliders" on Page 11.

Automating C-Knob MFX Edits



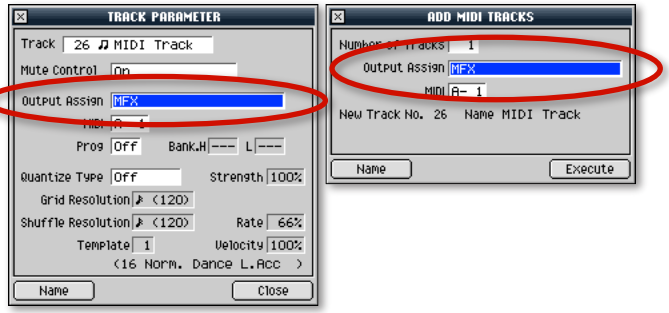
The C1, C2, and C3 knobs can control three parameters in the current MFX preset. You can automate changes you make with the knobs, recording the automation on its own MIDI track.



With this preset, C1-C3 control the MFX Chorus Mode, Chorus Dir/FX, and Chorus Input parameters, respectively.

You can assign the C knobs to any MFX parameters you like in the KNOB ASSIGN pop-up described on Page 377 of the *MV-8000 Owner's Manual*.

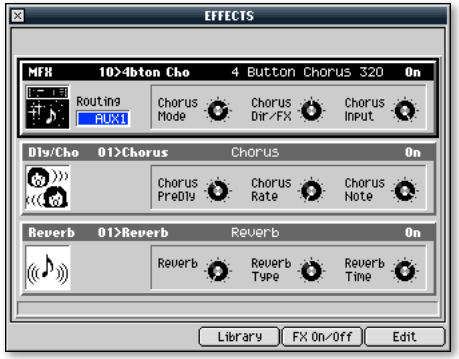
1. On the SEQUENCE or PATTERN screen:
   - *select an unused MIDI track*—and click Track Param.
   - *create a new MIDI track*—by right-clicking the track list and selecting Add MIDI Tracks...
2. In the TRACK PARAMETER or ADD MIDI TRACKS window, set Output Assign to MFX, as shown here.



3. Click Close in the TRACK PARAMETER window, or click Execute in the ADD MIDI TRACKS window.

We recommend naming your automation MIDI track right away to avoid confusion later.

4. Press the EFFECT button and press ▲ until the MFX area is highlighted, as shown here.



If the MFX area isn't highlighted, the C knobs control parameters in the highlighted effect area.

5. Use the TOP or MEAS buttons to go to the place in the song where you want to start recording automation.
6. Hit the RECORD button, and then set Rec Mode to Replace. (You can change any other settings in this window as desired.)
7. Hit PLAY to begin recording automation data.
8. As the song plays, move the C knobs as desired to automate your MFX tweaks.
9. Press STOP when you're done.

To immediately re-do the automation data you've just recorded, hit UNDO, and then repeat Steps 5-9. You can also re-do your automation at a later time by performing Steps 1-9 above again.

Playing Back C-Knob MFX Automation

Automation captures C-knob movements themselves, not the parameter values they produce. To play back C-knob MFX automation correctly, make sure your MFX and C knobs are set up exactly as they were when the automation was recorded. This means that:

- your MFX processor must be using the same preset.
- C1, C2, and C3 must be assigned to the same MFX parameters.

This won't be an issue when you play back C-knob MFX automation right after recording it, since none of these settings change by themselves. And when you save your project, all of the settings are saved, as well.

You only need to double-check your settings if you've changed them before saving your project, or after re-loading it.



You don't have to have the MFX area highlighted in the EFFECTS window during C-knob MFX automation playback.

Digging Deeper Into Automation

Automating Other MIXER Screen Channels

The MIXER screens hold more than audio track channels and MIDI track parts. They also contain the:



- *audio phrase channels*—with the level, pan, chorus/delay send, and reverb send parameters for audio phrases.



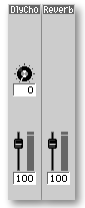
- *audio input channel*—with the level, pan, chorus/delay send, and reverb send parameters for your live input.



- *AUX 1-4 channels*—with parameters that control the level, chorus/delay send, and reverb send of the four AUX busses.



Typically, an AUX buss carries sounds from two or more mixer channels to the MFX. You can also use AUX busses to create headphone mixes or send sounds to another device. See the *MV-8000 Owner's Manual* to learn more.



- *delay/chorus channel*—so you can automate the level of the delay/chorus effect, as well as its reverb send.
- *reverb channel*—allowing you to automate the level of the reverb effect.

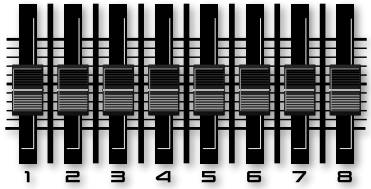


In case you don't know what a send does, a chorus/delay send controls the amount of a channel's sound that gets sent into the chorus/delay. A reverb send controls the amount of a channel's sound that goes into the reverb.

You can automate the settings of any of these MIXER screen channels using the steps in "Automating an Audio Track's Level" on Page 5, with the following changes:

- *In Step 2*—when you want to automate:
  - *the audio phrase channel*—select Mixer A.Phrs.
  - *the audio input channel*—select Mixer Input.
  - *an AUX bus*—select the Mixer AUX value that contains the number of the bus you want to automate.
  - *the delay/chorus channel*—select Mixer DlyCho.
  - *the reverb channel*—select Mixer Reverb.
- *In Steps 4 and 5*—navigate to the desired MIXER window and highlight the parameter you want to automate.
- *In Step 9*—use the selected channel's slider for adjusting its level, or use the mouse wheel or VALUE dial to adjust its highlighted parameter.

MIDI Track Automation and the Sliders



When the ASSIGNABLE SLIDER button is lit during MIDI track automation, the sliders send out MIDI CC ("Control Change") messages that the MV-8000 records onto your automation track.

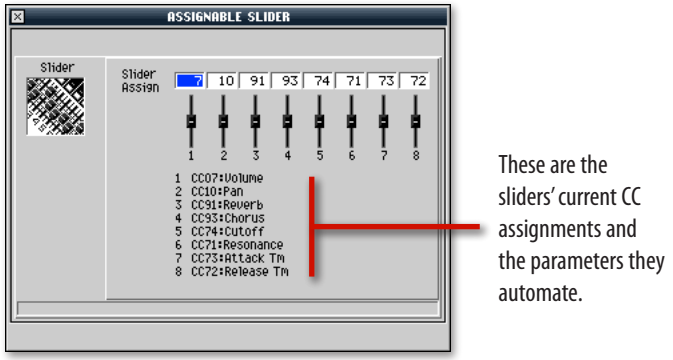


By default, this slider:	*controls the part's:*	*using MIDI CC #:*
Slider 1	volume	7
Slider 2	stereo panning	10
Slider 3	reverb send	91
Slider 4	chorus send	93
Slider 5	cutoff	74
Slider 6	resonance	71
Slider 7	attack time	73
Slider 8	release time	72

When you want to automate a filter sweep of a MIDI track sound, use Slider 5 to change the sound's filter cutoff setting.

You can change the CC messages the sliders produce. This lets you automate all sorts of changes to the sound played by a MIDI track. Here's how to change what the sliders do:

1. Press SYSTEM and select Slider to display the ASSIGNABLE SLIDER window, shown here.



These are the sliders' current CC assignments and the parameters they automate.

2. To change a slider's CC message, highlight its current value and use the wheel on your mouse or use the VALUE dial to select the desired CC number.

Not all CC numbers control part parameters in the MV-8000. If your MIDI track is playing a sound in an external MIDI device, though, check the device's documentation—CC numbers that MV-8000 parts don't use may be able to control the external sound in some interesting way.

Advanced Automation Techniques

Here are some of the more adventurous things you can do with automation.

Programming Automation on a Track

Use the MV-8000's Create Continuous Data command to program a series of parameter values that move smoothly from one value to another.

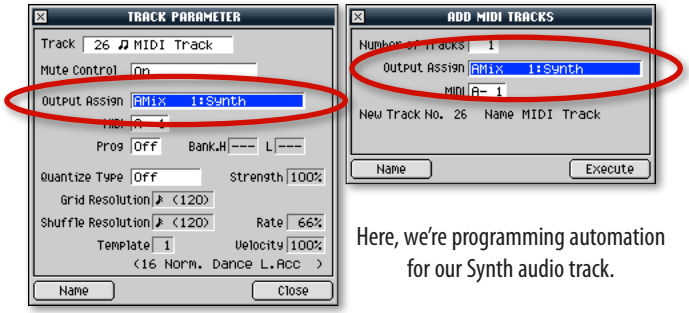
As with all other automation except for track mutes, Create Continuous Data automation should be recorded onto its own MIDI track.

Create Continuous Data can produce perfect song fade-outs with CC #7 Volume, and super-smooth filter sweeps using CC #74 Cutoff.

Here's how to use Create Continuous Data:

1. On the SEQUENCE or PATTERN screen:
   - *select an unused MIDI track*—and then click Track Param.
   - *create a new MIDI track*—by right-clicking the track list, and selecting Add MIDI Tracks...

2. In the TRACK PARAMETER or ADD MIDI TRACKS window, set Output Assign to the channel you want to automate.



Here, we're programming automation for our Synth audio track.

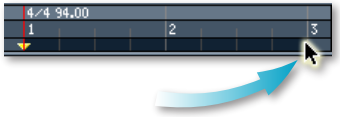
To automate:

- *an audio track channel*—set Output Assign to the AMix value that contains the desired audio track's number and name.
- *a MIDI track's part*—set Output Assign to the part the MIDI track is playing.
- *C-knob MFX changes*—set Output Assign to MFX.

If you're programming automation for multiple tracks at the same time—such as when you're creating a song or pattern fadeout—repeat Steps 1 and 2 for each track you want to automate.

Don't forget to name your automation MIDI track(s) right away to avoid confusion!

3. Click Close in the TRACK PARAMETER window, or click Execute in the ADD MIDI TRACKS window.
4. In the ruler on the SEQUENCE or PATTERN screen, click and drag your mouse across the desired region of the song or pattern so it becomes highlighted.



5. Click the MIDI track symbol for the track you're programming so it becomes highlighted—as shown here—and so the region selected in Step 4 becomes darkened in the selected track.

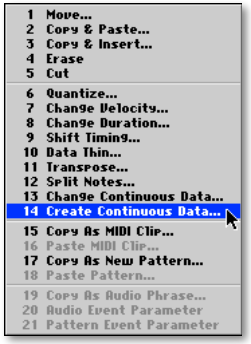


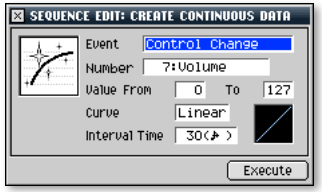


If you're programming automation on multiple tracks, repeat Step 5 for all of those tracks.

If you're working on the internal LCD, skip over to "Programming Automation on the LCD" on Page 13. (You can click here to jump there if you like.)

6. Right-click in the SEQUENCE window's work area to display the Edit pop-up, and then select Create Continuous Data... to display the CREATE CONTINUOUS DATA window.





7. Set the Event parameter to any of the following values:
   - *Control Change*—to program a series of MIDI CC values such #7 Volume, #10 Pan, #74 Cutoff, or #77 Vibrato Depth.
   - *Channel Aftertouch*—to program a series of channel-pressure values that affect an entire patch, including any notes that were played before the automation data in the song, and that are currently sustaining.
   - *Poly Aftertouch*—to program a series of polyphonic-pressure values that affect only patch notes that occur at the same time as the poly aftertouch data.
   - *Pitch Bend*—to program a series of pitch-bend values.

The Channel Aftertouch, Poly Aftertouch, and Pitch Bend values apply only to MIDI track part automation.

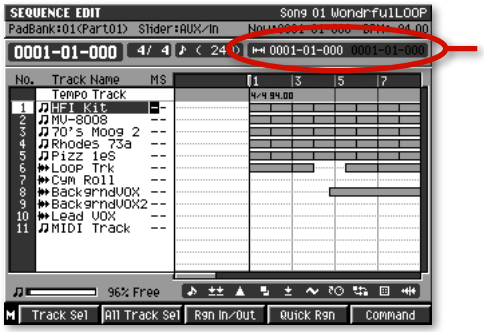
8. If you selected:
   - *Control Change in Step 7*—set Number to the desired CC value.
   - *Poly Aftertouch in Step 7*—you can set Note to add poly aftertouch events that apply only to a particular note.
9. Set:
   - *Value From*—to the starting value for your automation data.
   - *Value To*—to the ending value for your automation data.
10. Set Curve to the way you want the automation to move from its starting point to its end point.
11. Set Interval Time to the number of steps you want the MV-8000 to use to get from the starting value to the ending value. This sets the smoothness of the change.
12. Click Execute to create your new automation data.

Programming Automation on the LCD

Use the previous steps for programming automation on the internal LCD, with the following changes:

Instead of Steps 4-6

1. Press F6 (Seq Edit) and use the MEAS buttons to move to the place where you want your programmed automation to start.
2. Press F3 (Reg In/Out) until you see the current location appear as the first value in the Region In/Out area, as shown to the right.



the Region In/Out area

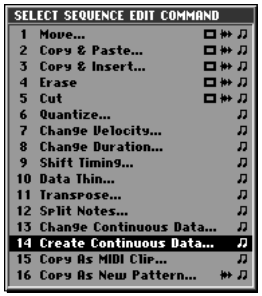
3. Move to the place where you want the automation to end, and then press F3 (Reg In/Out) again to enter your current location as the Out point in the Region In/Out area.



4. Press ▼ and/or ▲ to highlight a track you want to program, and then press F1 (Track Sel) so that the region becomes highlighted on the track.



5. Repeat Step 4 for any other tracks you want to program.
6. Press F5 (Command), and then select Create Continuous Data... to display the CREATE CONTINUOUS DATA window.



Instead of Step 12

1. Press F5 (Execute).

Editing Automation in an Event List Editor

Since automation is MIDI data, you can edit it in an Event List editor, cleaning up its timing, tweaking values, or even moving track mutes from track to track.

Navigating to an Event Editor

Audio Track, MIDI Track, and C Knob Automation

1. On the SEQUENCE screen, select the desired automation track and click Event List.

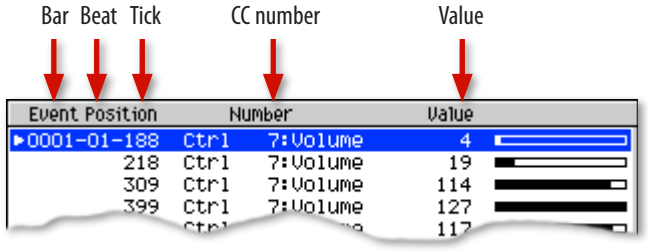
Track Mute Automation

1. Hold down SHIFT and press PAD BANKS.
2. Press MENU, and then select Mute Control Track.

Editing Events

Audio Track, MIDI Track, and C Knob Automation

Double-click a value you want to edit, and then dial in the desired new value. You can edit the following values:



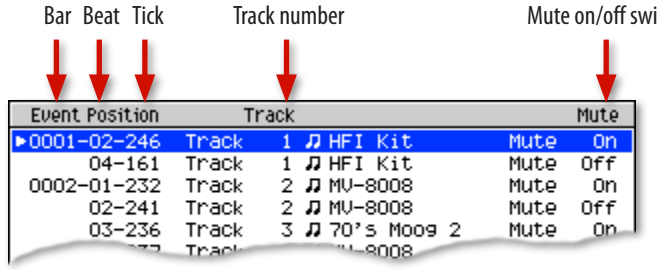
MFX automation data for the C1 knob appears as CC 16 (General 1). C2's data appears as CC 17 (General 2), and C3's as CC 18 (General 3).

To lock in changes, click the Close button in the upper-left corner of the Event List. To exit the list, click Close again.

To learn about the tools and options in an Event List window, see the *MV-8000 Owner's Manual*.

Track Mute Automation

Double-click a value you want to edit, and then dial in the desired new value. You can edit the following values:



If you'd like to change the track that's being muted at any time, select an existing Mute On event and change its track number to the desired track.

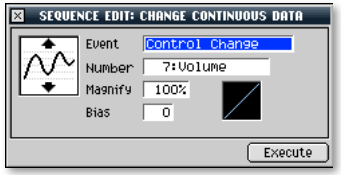
To lock in your changes, click the Close button in the upper-left corner of the Event List. To close the window, click the Close button again.

Click Track Sel to filter your view so that only the desired tracks' mutes appear. To learn about the other tools and options in the window, see the *MV-8000 Owner's Manual*.

Editing Automation by Scaling its Values

Using the Change Continuous Data tool, you can scale a series of automation values up or down, or change their values relative to each other. Here's how:

1. Perform Steps 1-5 in "Programming Automation on a Track" on Page 11 to select the desired song or pattern region, and then choose Change Continuous Data... in Step 6 to display the CHANGE CONTINUOUS DATA window.



2. Select the type of data you want to scale by setting the Event parameter.
3. If you selected:
   - *Control Change in Step 2*—select the CC number of the automation data you want to scale.
   - *Poly Aftertouch in Step 2*—set the range of notes whose poly aftertouch automation data you'd like to scale.
4. The Magnify parameter can force the values in the selected region into a new shape, changing their relationship to each other. As you adjust the Magnify parameter's value, watch the diagram to the right to see the shape you're applying. (If you don't want to use Magnify, set it to 0%.)
5. Use the Bias value to raise or lower all of the values in the selected region by the same amount. Settings above 0 increase the values, and settings below 0 lower them. To leave them as they are, set Bias to 0.
6. Click Execute to complete the scaling operation.

Combining Automation Data on a Track

Our instructions so far explain how to record a single type of automation on each automation track. Working this way makes it easier to redo or edit your automation, so it's the way we recommend you work. But it's not the only way to go.

Advanced users may be comfortable with combining different types of automation on the same track. In this way, you can:

- automate two or more parameters at the same time when you automate an audio track or other MIXER screen channel.
- work two or more parameters DJ-style with the sliders as you automate an internal or external MIDI track.

When you're automating more than one parameter at a time, you have to redo all of that automation if you want to redo any of it.

You can use other Rec Mode settings for recording automation if you don't mind combining automation data.

With Rec Mode set to an Overdub value, you can even record automation data onto a MIDI track that already holds note or performance data. There's rarely a need to squoosh things up like this, though, with 128 MIDI tracks.

The End

We hope you've found this workshop helpful. Keep an eye out for other MV-8000 Workshop booklets, all available for downloading at *www.RolandUS.com*.



For the latest MV-8000 updates and support tools, visit the Roland U.S. Web site at *www.RolandUS.com*. If you need personal assistance, call our amazing Product Support team at 323-890-3745.