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Supplemental Notes

MC-505 Advanced Programming

October 20th, 1998   SN90 v1.0

It all started with the MC-303 in 1996. Then, in 1998, the MC-505 Groove Box exploded on the scene and added a whole new dimension to the word "Groove." With over 500 sounds, 64-voice polyphony, a large sequencer capacity, extensive MIDI implementation, and an infrared D-Beam* controller, the MC-505 is all you need to make professional sounding grooves. The purpose of this document is to help the intermediate to advanced user probe the depths of the MC-505. We will assume that you already have a good grasp of the basic operations including selecting and muting patterns, as well as writing and recording your own patterns and songs. If you are new to the MC-505 or need to review these basic concepts, follow along with the Quick Start (included with your MC-505). Another good source of basic information is the MC-505 TurboStart, which is available from our FaxBack system (document #20070) or from our Website (www.rolandus.com).
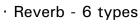

Index

We will cover the following topics in this document:

I. Selecting and assigning effects on the MC-505.
II. Using the Mute function.
III. Pattern Sets and the Pattern Call function.
IV. Assigning and using the individual outputs.
V. Creating reverse drum sounds on the fly.
VI. Copying RPS patterns for additional editing.
VII. D-Beam tricks.
VII. Internet resources for MC-505 users.

*D-Beam controller technology has been licensed from Interactive Light Inc.
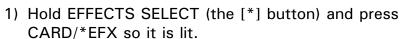
I.   Effects

Effects can significantly change a sound or a whole groove. The same pattern can be made to sound very different when an effect is applied. The MC-505 has 3 separate effects processors that can be assigned to any Part or rhythm instrument. These effects are an important part of creating an interesting and satisfying pattern or song. The effects in the MC-505 include:

· Reverb - 6 types
· Delay - 2 types
· Insert - 23 effects

The Insert effects range from common effects such as overdrive and flanger, to unique effects such as Lo-Fi, Phonograph, Radio Tuning, and Slicer. Use the following procedure to add some record noise to one of your grooves:

1) Hold EFFECTS SELECT (the [*] button) and press CARD/*EFX so it is lit.
2) Continue to hold EFFECTS SELECT, and use the VALUE dial to select "PHONO."
3) Press EFFECT SELECT to light the EFX OUTPUT LEVEL indicator.
4) Rotate the EFX knob all the way clockwise.
5) Press TEMPO/MIXER then press MIXER SELECT to light the EFX/OUT indicator.
6) Use the mixer sliders to turn on/off the phonograph effect for the desired Parts.
7) Press PLAY. Hold EFFECTS SELECT and use the VALUE dial to select different effects.

If you want to adjust the parameters of the currently selected effect, press EFFECTS SELECT to cycle through the CTRL 1, 2, and 3 parameters and use the EFX knob to change the settings.

These new effects settings can be saved in a pattern. Use the following procedure:

1) Press PNT/SONG.
2) Press WRITE and use the VALUE dial to select the desired destination pattern.
3) Press ENTER twice.

Fig.1
Effects Section and Effects Select Button

II.   Power Muting

You may have already mastered the concept of muting individual Parts of a pattern. But what if you need to mute out several Parts (or all Parts) of a pattern at the same time? Use the following procedure (called "All Mute") to mute all the Parts simultaneously:

1) Select Pattern P:049 and press PLAY.
2) While holding PART MUTE, press RHYTHM MUTE. All Parts are muted.
3) Hold PART MUTE and press RHYTHM MUTE again to toggle between All Mute and All Play.

Now, use "Solo Mute" to break down the pattern to just one Part:

4) While holding PART MUTE, press the Part R select button to solo the Rhythm Part.

Suppose we want to hear everything except the drums. Since we currently are hearing only the Rhythm Part, we can use "Mute Exchange" to quickly invert the status of our mutes:

5) While holding PART MUTE, press PART SELECT. The Rhythm Part will be muted, but all other Parts will play.

**Fig.2
Part Mixer with Mute buttons**

This technique also works well for inverting multiple combinations of Parts. For instance, we might begin by muting tracks R, 2, 4, and 7 and by using Mute Exchange we can instantly mute out tracks 1, 3, 5, and 6 instead.

Another feature of the MC-505 allows the mute status of the current pattern to be held over for the next pattern. This technique is referred to as "Mute Remain:"

6) Continue to play back Pattern P:049 and mute out everything except for Parts R and 2.
7) While the pattern is playing back, press PLAY again (so it begins to flash).
8) Press the INC button to select the next consecutive pattern. The next pattern will play back using the mute status of the previous pattern.

As you can see, the MC-505 allows you to alter patterns in several ways quickly and easily in realtime.
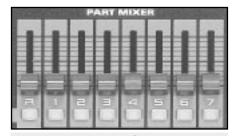
III.   Pattern Call

Many performing DJs don't compose a song ahead of time. Instead, they improvise various grooves and patterns on the fly. This can be accomplished by using the MC-505's Pattern Call feature, which lets you have a specific collection of patterns assigned to the KEY PAD buttons. You can select a pattern with a KEY PAD which will continue to play back until you select a different pattern. A collection of up to 16 patterns (one assigned to each KEY PAD) is referred to as a "Pattern Set." For our example, let's assign a few patterns (P:031, P:009, P:003, P:197, P:009, and U:001) to a Pattern Set:

```
PTN SET      U:01
Techno 1
```

**Fig.3
Selecting
PTN SET U:01**

1) Press PTN SET and use the VALUE dial to select the first User Pattern Set "U:01 Techno 1."
2) Press PTN/SONG and use the VALUE dial to select the first pattern "P:031 NU-NRG 4."
3) While holding PTN/CALL, press KEY PAD 1, the LCD display will briefly indicate "Complete!"
4) Use the VALUE dial to select our next pattern "P:009 Psy Trance 9."
5) While holding PTN/CALL, press KEY PAD 2, again, the LCD display will briefly indicate "Complete!"
6) Repeat steps 4-5 to continue to register the remaining patterns (P:003, P:197, P:009, and U:001) to KEY PADs 3, 4, 5, and 6.

Note

As on many Roland products, holding down the SHIFT button while rotating the VALUE dial will cause the parameter or value to scroll more quickly than normal.

Now let's use the Pattern Call function to play the Pattern Set we've just made:

1) Press PTN/CALL so it is lit
2) Press KEY PAD 1. The first pattern we've registered (P:031) should appear in the LED display.
3) Press PLAY to begin playback of the pattern.
4) Use the KEY PAD 2-6 buttons to select other patterns. As soon as the current pattern has finished, the next pattern will play.

Pattern Call (continued)

Now let's assign a footswitch to cycle through the
Pattern Set we've created:

1) Connect a Roland DP-2 or BOSS FS-5U footswitch to
   the PEDAL input on the rear of the MC-505.
2) Hold SHIFT and press KEY PAD 10.
3) Use the PAGE < / > buttons to select
   "Pdl Assign =HOLD."
4) Use the VALUE dial to select "Pdl Assign=PTN-I."
5) Press EXIT and wait until the "Processing…Keep
   Power ON!" message disappears.
6) Press PTN/SONG then press PTN CALL so it is lit.
7) Press KEY PAD 1 to recall the first pattern we've
   assigned (P:031).
8) Press PLAY to begin playback of the pattern.
9) Press the footswitch once. When the current pattern
   has finished, each press of the footswitch will
   advance to the next assigned pattern in the pattern
   set.

Using the footswitch to select patterns can free up your
hands to play another instrument, use the D-Beam, the
realtime controls, and the mixer section of the MC-505.

IV.   Using Direct Outputs

In most recording studios and many live performance setups, it is preferable to use individual outputs to send specific Parts or instruments to a mixer for processing or to give more control to the engineer. The MC-505 is normally set to use the LEFT/RIGHT MIX outputs. However, it is possible to send any Part of a pattern to the DIRECT 1 and DIRECT 2 outputs on the rear of the MC-505. Use the following procedure to utilize the DIRECT 1/DIRECT 2 outputs:

**Fig.4
MC-505 Rear Panel**

1) Connect the desired outputs of the MC-505 to the appropriate inputs of your external device.
2) Press PTN/SONG and use the VALUE dial to select the desired pattern.
3) Press MIXER SELECT to light the EFX/OUT indicator.
4) Press TEMPO/MIXER in the DISPLAY section.
5) Hold SHIFT and use the PART MIXER slider for each Part to select the desired output destination, DRY, EFX, DIR1, or DIR2. Consult Figure 5 to determine the routing assignments:

DRY: Signal is sent to LEFT/RIGHT MIX outputs and not routed through the EFX processor.
EFX: Signal is sent to LEFT/RIGHT MIX outputs and routed through the EFX processor.
DIR1: Signal is sent to DIRECT 1 outputs.
DIR2: Signal is sent to DIRECT 2 outputs.

**Fig.5
Part Output Options**

6) Press PLAY to listen to the pattern now utilizing the DIRECT outputs.

You can use the PAN controls to move a Part to just one output if you would like to have several mono outputs. Use the following procedure to set Part 2 to play only from the left DIRECT 1 output:
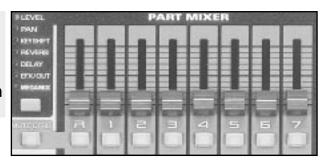
1) Assign Part 2 to the DIRECT 1 output destination (as previously described).
2) Press MIXER SELECT to light the PAN indicator.
3) Use the PART MIXER slider for Part 2 to select "L64."

V.   Reverse Drum Hits

Just as a DJ has the ability to spin a record backwards, you can use the KEY SHIFT function in the Part Mixer to simulate reverse drum hits when applied to the Rhythm Part. Use the following procedure to simulate the effect of backwards grooves:

1) Select Pattern P:143 HipHop West 1, and press PLAY.
2) Press MIXER SELECT to light the KEY SHIFT indicator, then press TEMPO/MIXER.
3) Quickly move the PART MIXER slider for PART R all the way up for a reversed drum effect.
4) Move the PART MIXER slider for PART R to the middle position to turn the reverse effect off.

**Fig.6
Part Mixer with
Mute buttons and
Mixer Select button**

Note

This technique will require practice to be used convincingly, and only applies to the Rhythm Part. Moving the sliders for Parts 1-7 will simply change the pitch.

Tip

Because slider movements can be recorded into a pattern, you can record the reverse drums within any RPS or User patterns. Try using this technique in conjunction with the D-Beam assigned to TURNTABLE for maximum authenticity.

VI.   Copying RPS Phrases

The MC-505 contains 60 RPS sets covering a wide variety of styles. Each RPS set contains up to 16 RPS phrases. Perhaps you have found an RPS key that contains a part you might want to include in one of your own patterns. RPS phrases do not actually contain pattern data (they simply "point" to an existing pattern). Because of this, you can easily copy the source pattern of the RPS phrase to your User pattern for further editing. Use the following procedure to locate the source for a RPS phrase and copy it to a new pattern:

1) Hold the desired RPS phrase on one of the KEY PADs, then press and hold PTN/SONG. The LCD will display the source pattern and Part for the RPS phrase.
2) Release all buttons and use the VALUE dial to select the pattern indicated in the display from step 1.
3) Hold EDIT and press KEY PAD 1.
4) Use the PART SELECT buttons (just below the Part Mixer Sliders) to select the Part you wish to copy.
5) Use the VALUE dial to select "From = 1." Press ENTER and use the VALUE dial to select "For = ALL."
6) Press ENTER and use the VALUE dial to select the destination pattern.
7) Press ENTER twice and use the VALUE dial to select "Status = ALL."
8) Press ENTER and use the VALUE dial to select "Mode = REPLACE."
9) Press ENTER and use the VALUE dial to select "Times = 1."
10) Press ENTER twice.

VII.   D-Beam Tricks

The infrared D-Beam controller is just one of the many impressive features of the MC-505. From the default settings, the D-Beam allows you to select either Turntable, Cutoff + Resonance or Ad Lib effects allowing you to physically interact with your patterns and sounds. There are 28 additional control types available for use by the D-Beam.

D-Beam Tricks (continued)

Assigning the D-Beam

Use the following procedure to assign the D-Beam con-
troller to any of the 28 available control types:

1) Hold the D-BEAM CONTROLLER SELECT button and
   use the VALUE dial to select one of the 28 D-Beam
   control types.
2) Press the D-BEAM CONTROLLER ON/OFF button so
   it is lit to activate the D-Beam.

**If you select the Note+Bnd control type, touch
one of the sixteen keypads while continuing to
hold the D-BEAM CONTROLLER SELECT button
to select a note to be triggered by the D-Beam.
If you select the Adlib1 or Adlib2 control types,
continue to hold down the D-BEAM CON-
TROLLER SELECT button and use the PAGE </>
buttons to select one of the 21 different scale
types.**

Using the Adlib Function

The D-Beam can be made to emulate to sound of a
Theramin (a unique instrument that is played by waving
your hands near two metal antennas) by using the Adlib
control type. Use the following procedure:

1) Press PATCH in the DISPLAY section.
2) Press PART SELECT and use the PART SELECT but
   tons to select Part 1.
3) Use the VALUE dial to select Patch "P:A054 Sine
   Tone."
4) Hold the D-BEAM CONTROLLER SELECT button and
   use the VALUE dial to select "26:Note + Bend [A4]."
5) Press the D-BEAM CONTROLLER ON/OFF button so
   it is lit. This will activate the D-Beam.
6) Move your hand at various distances over the
   D-Beam Controller to utilize the Note + Bend effect.

Next, we will improve the sound of our Theramin by
increasing the range of the pitch change:

7) Hold EDIT and press KEY PAD 14.
8) Use the PAGE < / > buttons to select "BEND: Bend
   Down."

**Fig.7
D-Beam Controller
lens, Select and
On/Off buttons**

D-Beam Tricks (continued)

9) Use the VALUE dial to set the bend down range to "-48."

10) If desired, press WRITE and save the edited Patch to an empty USER Patch location.

Now, the D-Beam will smoothly change the pitch of Part 1 over a range of five octaves.

Tip 💡

Feel free to try patches other than P:A054 Sine Tone as directed in step 3 on the previous page. For best results, select a sound with long sustain characteristics such as the lead synth patches found in presets P:A000-P:A064.

Note

Assigning the D-Beam contoller to functions other than the three factory types is a temporary setting that is not stored after you turn off the power.

Using the D-Beam to Trigger External Devices

We can make a few modifications in the above steps to trigger an external MIDI sampler, sound module, or keyboard. Needless to say, waving your hand in mid air to trigger a sound or phrase can be very cool. Use the following procedure to trigger a sample from the Boss SP-202 Dr. Sample using the D-Beam:

1) Connect audio cables from the L/R LINE OUT jacks of the SP-202 into the corresponding inputs of your external mixer, amplifier, or receiver.

2) Connect a MIDI cable from the MIDI OUT jack of the MC-505 to the MIDI IN jack of the SP-202.

3) Power on the SP-202 while holding PAD 1 to set it to receive on MIDI channel 1.

4) Verify that a sample has been recorded and assigned to PAD 1 of your SP-202.

5) On the MC-505, press PART SELECT and use the PART SELECT buttons to select Part 1.

6) Use the OCTAVE - and + buttons to select "OCT -2" in the LED display.

7) Verify that KEY PAD 2 on the MC-505 triggers the sample assigned to PAD 1 on the SP-202.

D-Beam Tricks (continued)

8) While holding the D-BEAM CONTROLLER SELECT
   button, use the VALUE dial to select
   "26:Note+Bend [A4]."
9) While continuing to hold the D-BEAM CONTROLLER
   SELECT button, use the OCTAVE - and + buttons
   and KEY PAD 2 to select "26:Note+Bend [C2]."
10) Release the D-BEAM CONTROLLER SELECT button.
11) Press the D-BEAM CONTROLLER ON/OFF button so
    it is lit.

Note

When the octave is set to "OCT -2" on the MC-505. KEY PADS 2-9 will normally trigger pads 1-8 of the SP-202. Keep this in mind if you have multiple samples assigned to the pads of your SP-202.

As you move your hand over the D-Beam Controller, the
sample assigned to PAD 1 of the SP-202 will be trig-
gered. Now, we will set the Part that is playing the MC-
505 Patch so only the external sampler will be played.

12) On the MC-505, hold SHIFT and press KEY PAD 12.
13) Use the PAGE < / > buttons to select "SYS:MIDI
    LocalTX."
14) Press PART SELECT and use the PART SELECT
    buttons to select PART 1.
15) Use the VALUE dial to select "EXT."
16) Press EXIT. Now, the D-Beam controller of the
    MC-505 will only play the external sampler for
    Part 1.

Note

Some samplers receive MIDI pitch bend mes-sages. Therefore, your samples may speed up or slow down (and change in pitch) depending on the distance of your hand from the D-Beam controller lens. If this is not desired, set both the Pitch Bend Range Up and Pitch Bend Range Down in the Patch section of the MC-505 to a value of 0 (as previously described). Once you have made these set-tings, the sample will always play back at a standard default tempo and pitch.

VIII.   The MC-505 on the Web

The Internet has proven to be a tremendous source for additional information on the MC-505 as well as the entire line of Roland Groove Gear. Figure 8 lists the Roland Corporation U.S. URL addresses pertaining to the MC-505 and other Groove products. Additionally, you can use any of the major search engines to find many independent Websites that have lots of information on the MC-505.

http://www.rolandus.com	**Roland Corporation U.S. Homepage**
http://www.rolandgroove.com	**Roland Groove Website**
http://www.rolandus.com/PRODUCTS/MI/MI_GRP.HTM#MC-505	**MC-505 General Info**
http://www.rolandus.com/SUPPORT/DOCS/PATCH/MC505_P1.HTM	**MC-505 Patch Listing**
http://www.rolandus.com/SUPPORT/DOCS/PATCH/MC505PN1.HTM	**MC-505 Pattern Listing**
http://www.rolandus.com/SUPPORT/DOCS/TURBO/MC505.PDF	**MC-505 TurboStart Document**
http://www.rolandus.com /SUPPORT/SOFTWARE/SOFT_IND.HTM	**Software Update Page**

**Fig.8
Roland Corp. U.S.
web locations**

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