





RA – 800

REALTIME ARRANGER

2 – Reference Manual

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIE		
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.
2. Do not use this product near water — for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
3. This product should be used only with a cart or stand that is recommended by the manufacturer.
4. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be located so that its location or position does not interfere with its proper ventilation.
6. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
8. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
9. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
10. The product should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled onto the product; or
 - C. The product has been exposed to rain; or
 - D. The product does not appear to operate normally or exhibits a marked change in performance; or
 - E. The product has been dropped, or the enclosure damaged.
11. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

For the USA

This product may be equipped with a polarized line plug (one blade wider than the other) . This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.

For Canada

For Polarized Line Plug

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.
ATTENTION: POUR ÉVITER LES CHOCs ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
 BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
 The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

About the Reference Manual

Welcome to the *Reference Manual* of your RA-800. Before telling you what to expect from this manual, here are a few points that are *not* covered: Tone, Performance Memory, MIDI Set, Music Style, and User Style selection. See the *Player's Guide* for hands-on operations (such as how to record Songs, write your settings to a Performance Memory, use the Chord Sequencer, etc.)

As its name implies, the present manual is only for your reference: it explains the available parameters and their setting ranges, and gives you some hints about the way certain parameters are related to one another. That is why it may seem far more "technical" than the *Player's Guide*. The *Reference Manual* manual is typically a document you turn to whenever you come across a parameter you'd like to know more about – or to discover what else the RA-800 can do for you.

One final thing: we chose to indicate the addresses of the various display pages using backslashes (\). You probably know that symbol is used by computer users to indicate the hierarchy of various directories (or folders). The leftmost entry is always the most important one – and in the case of your RA-800 designates the mode.

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1 Before you start

Master page

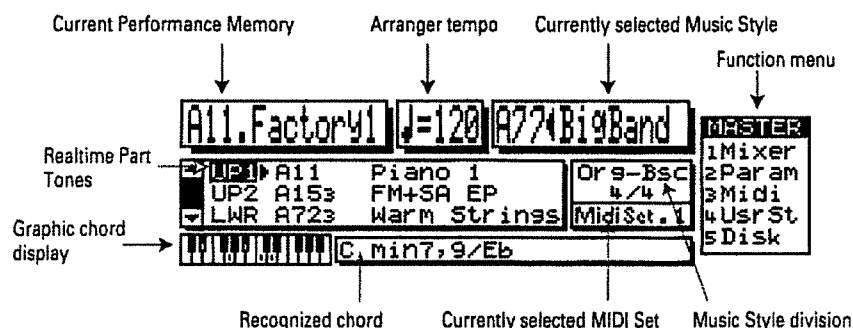
The main mode of your RA-800 is the Arranger Mode. The RA-800 automatically selects this mode each time you power on the instrument.

When the Arranger mode is selected, you can play melody and accompaniment parts in realtime while controlling a backing section with the chords played in the chord recognition area.

The RA-800 contains 128 internal Music Styles. Up to 8 User Styles can be loaded from disk or created – and selected and used in the same way as the “ROM Styles”.

While in Arranger mode, you can scroll through different pages by pressing the Function keys located to the right of the display.

The Master page is the page that appears after powering on your RA-800. While this page is displayed, you can select Music Style using the STYLE Select buttons on the front panel.



Style number and name

The number and name of the currently selected Style or song appear in the top line of the display. The G-800 contains 128 Styles that are divided into 2 Groups [A-B]. Each group contains 8 Banks [1-8], and each bank has 8 Styles (1-8).

Use the Style selection buttons to choose the desired Style. See “Selecting Music Styles” in the *Player’s Guide* for details about selecting Styles.

Performance Memories [A11~C88]

The number and name in the upper left-hand corner show the currently selected Performance Memory Number and name. The G-800 provides 192 Performance Memories. A Performance Memory contains all panel settings and Part parameter values that were active at the time you saved them.

Using these Performance Memories, you can easily store and recall a complete registration with the dedicated Performance Memory buttons.

Tempo (40~250)

Using the TEMPO dial you can set the right tempo for the Style accompaniments. The value can be set from 40 to 250. The display always indicates the currently set (and thus active) tempo.

Realtime Parts Tones

The fields located in this part of the display show the tones assigned to each one of the Realtime Parts. See "What are Parts?" and "Selecting Tones for the Realtime parts" in the *Player's Guide* for details. The available Realtime parts are: Upper1, Upper2, Lower, M.Bass, and M.Drums.

Graphic Chord Display, Recognised Chord

These areas of the display show a graphic representation of the keys pressed in the chord recognition area. The field next to the Graphic Chord display shows the name of the recognized chord. If the Chord Inversion function (see the *Player's Guide*) is active, the chord names are shown with the leftmost note played indicated after a slash, e.g. C Maj /G. This means C major chord with "G" as leftmost note.

MIDI Set (1~8)

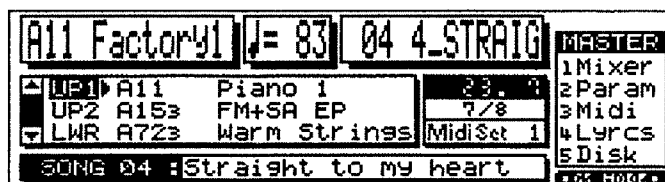
This field shows the MIDI set currently selected. As you know, the RA-800's memory can hold 8 MIDI Sets. MIDI Sets contain all MIDI settings of your RA-800 (because the MIDI parameter settings are not saved to a Performance Memory).

Current division, time signature

This window indicates the currently selected Style division and time signature of the current Style. The information in this window always reflects your actions on the front panel (or using a footswitch, or an optional FC-7) and the values assigned to the newly selected division.

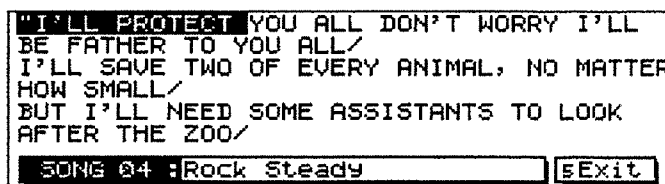
GM/GS mode Master page

In the GM/GS mode, the Master page looks slightly different. The fourth option, [F4] UsrStl, is replaced by the Lyrics function. Note also the GS MODE message in the lower right-hand corner:



Lyrics function (only available in GM/GS mode)

Press [F4] (Lyrics) whenever you wish to follow the on-screen, karaoke type of lyrics display. This function is only available for Standard MIDI Files containing lyrics data. If you press [F4] during playback of a Standard MIDI File containing Lyrics data, the display will look similar to the following illustration:



Press [F5] (Exit) to return to the GM/GS mode Master page.

Part Select buttons

These buttons are used to select the Realtime part you want to assign another Tone to. Remember that using the [PAGE] ▲▼ buttons may place a part on the top line without activating it for Tone selection.

RA-800 modes

The RA-800 interface is provided with different environments, each one related to a specific group of functions.

The Function keys [F1]~[F5] allow you to switch between different modes.

[F1]	Mixer (see page 20)
[F2]	Param (see page 30)
[F3]	Midi (see page 81)
[F4]	UserStl (see page 44) or Lyrics (see page 8)
[F5]	Disk (see page 96)

There are two other modes that can be selected using dedicated buttons: Volume and Tone. The Volume mode allows you to set the volume of all RA-800 parts, while Tone is a useful mode when you wish to assign other Tones to a part without having a clear-cut idea about the kind of Tone you need, or to assign other Tones to the Arranger parts, which may be necessary for GM/GS compatibility reasons.

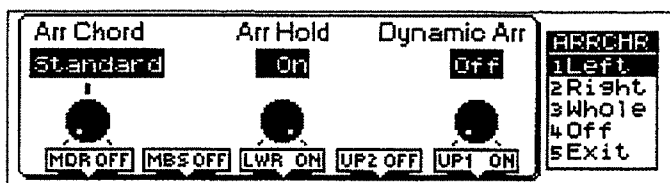
2 ARR Chord page

This display page allows you to select the notes used to control the Arranger function of your RA-800, to specify the way in which the notes you play in the Chord Recognition area will affect chord recognition, and to switch the Arranger Hold function on or off.

ARR CHR (function keys)

After selecting the ARR Chord page by pressing [ARR CHORD], the function keys [F1]–[F4] allow you to specify which note range the Arranger (i.e. the automatic accompaniment function) is to scan for the musical information required for playing a meaningful accompaniment.

Function key	Meaning
[F1] Left	The Arranger scans all notes up to the Split point. The Split point can be set on the Parameter\Global\2 page and also applies to the Realtime parts.
[F2] Right	The Arranger scans all notes to the right of the Split point.
[F3] Whole	The Arranger scans all notes the RA-800 receives via MIDI.
[F4] Off	The Arranger function is off. Select this setting for songs you prefer to play on your own.



Please bear in mind that the ARRCHR setting only applies when the RA-800 is being controlled on its Basic Channel. If you prefer to control the Arranger on one of its proprietary channels (i.e. NTA 1 and/or NTA 2), the only way to narrow down the note range is to modify the Low/High Limit settings. The disadvantage of doing so is that these settings can only be saved to a MIDI Set. Again, we would like to suggest you use the Basic Channel control system wherever possible because that is the only way to save settings like the above to a Performance Memory (of which there are 192).

As you see, you can use the Part Select buttons to activate or switch off the Realtime parts. See the *Player's Guide* for more information about the Realtime parts.

Arr Chord (Chord Recognition area)

Use the [DRUMS/PART] knob to select the Arranger Chord mode. The options are:

Standard	STANDARD means that you select the normal chord recognition mode. In Standard mode, the melodic accompaniment plays the chords you play in the Arranger Chord Assign area. If you play only one note in that area, the accompaniment plays only that note.
----------	--

Piano Style	Select PIANO STL to change the chord recognition method to Piano Style. In this mode, the Arranger decodes every chord you play – no matter where you play it. Causing the Arranger to play another chord requires that you play at least a triad (i.e. the three notes that make up a chord). You are free to play more than three chord notes but remember that two notes won't cause the Arranger to play another chord. Feel free to select Whole for a piano-style control of the Arranger.
Intelligent	Select INTELLIGENT whenever you want the Arranger to add the missing notes of the chord you want to play. See the chart of the intelligent chords and the way to play them.

Arr Hold

Use the [BASS/BANK] knob to switch the ARR Hold function on or off. This function is related to the melodic accompaniment of the Arranger (i.e. all accompaniment parts except the drums). When Arranger Hold is Off the melodic accompaniment only plays for as long as you press one or more keys in the Chord Recognition area (or within the Low/High Limit zone): as soon as you release all keys, the selected Music Style will be stripped of all melodic accompaniment lines, leaving only the drums.

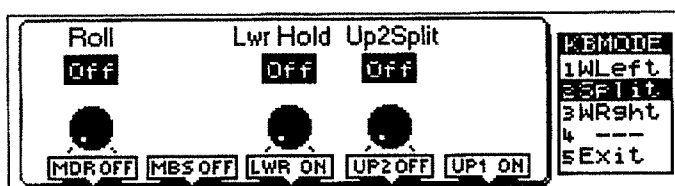
Switch the Arranger Hold function on when you wish to do other things (e.g. selecting other Style divisions) between two chord changes.

3 KBD Mode page

Press [KBD MODE] to call up the display page of the same name.

KBD Mode

On the KBD Mode page, the function keys [F1]~[F3] allow you to activate the Realtime parts you need. Select [F3] W Right when you wish to play the Upper1 and/or Upper2 parts, [F1] W Left to have access to the Manual Bass and Lower parts, or [F2] Split if you wish to use any combination of up to four Realtime parts (Upper 1/2, Lower, and M. Bass).



Selecting another KBD Mode may mean that the Realtime parts linked to that mode (UPPER1 and 2 to W Right, M. Bass and Lower to W Left) are suddenly deactivated. In other words, if you switch from [F3] W Right to [F1] W Left, the Upper parts will be switched off. If neither the Lower nor the M. Bass part is active at that time, you can no longer control the RA-800's Realtime parts.

Roll

Use the [DRUMS/PART] knob to switch the Roll function on or off. This function is linked to the Manual Drums (MDR) part, so that it only works when you activate the Manual Drums part. When Roll is switched on, every note will be converted to a roll whose speed is settable (see the Parameter\Global\3 page).

LWR Hold

Use the [BASS/BANK] knob to switch the Lower Hold function on or off. This function does the same as the Arranger Hold function (see the previous chapter). This time, however, it allows you to sustain the notes of the Lower part, so that there is no need to keep the corresponding keys depressed until the next chord change.

UP2 Split

Use the [LOWER/NUMBER] knob to activate or turn off the UP2 Split function.

Note: Upper2 Split only works if the Upper1 part is active. If you turn off Upper1, you will neither hear the Tone assigned to Upper1 nor the one assigned to Upper2. In other words, it is impossible to program an Upper split without using the Upper1 sound.

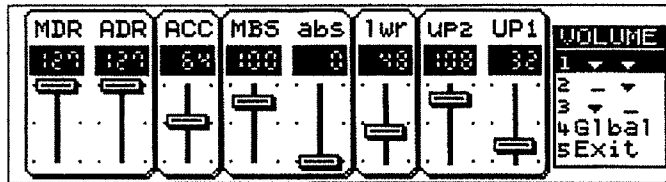
Part Select buttons

On the KBD Mode (and ARR Chord) page, the Part Select buttons allow you to switch the corresponding Realtime parts on or off. Note that it is perfectly possible to switch on or off the Lower part (press Part Select [LOWER]) when in [F3] W Right mode. That doesn't mean, however, that you will hear that part because that is only possible in Split or W Left mode.

Note: Switching on or off the Realtime parts on this page only applies to Basic Channel control of the RA-800. Direct control of the Realtime parts (on their respective MIDI channels) is always possible – that is, if the parts in question are set to receive MIDI data.

4 Volume pages and Volume mode

- Master page: [VOLUME]
Or rotate one of the five knobs



On the Master page, the 5 knobs are assigned to the volume of the Real Time parts [Upp 1 - Upp 2 - Lower - M. Bass - M. Drum]. Whenever you rotate a knob, the Volume page will be selected (and the [VOLUME] indicator starts flashing).

Rotate the knob one more time to change the volume of the part assigned to that knob. The Volume page will disappear after a few seconds of inaction. If, however, you press the [VOLUME] button (indicator lights steadily), the Volume page will be displayed until you press the [VOLUME] button once more.

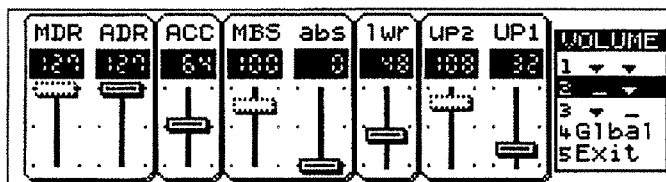
On this page, the Part Select buttons can be used to mute (lowercase part names) or activate (uppercase) parts.

Volume control (fader assignments)

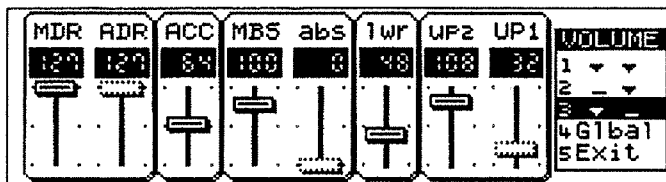
The knob located below each section allows you to control the level of the corresponding part. When you press [F1], certain faders are grouped, which means that they control two sections (MDR & ADR, MBS & ABS, UP1&UP2).

Using the function keys [F1]~[F4], you can change the knob/part assignments, thereby enabling individual control of the Volume parameters.

(a) [F2] (Only the right faders)

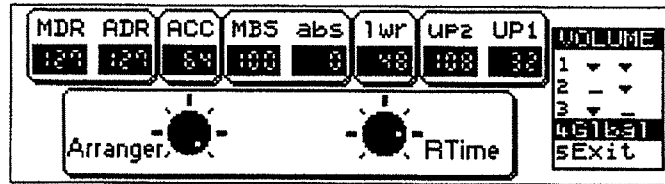


[F3] (Only the left faders)



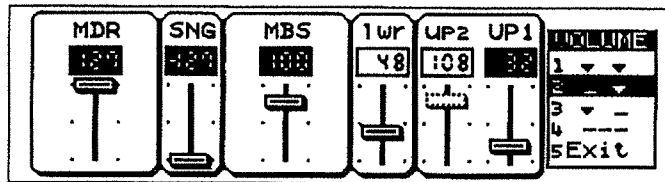
Global Volume

Press [F4] to select the Global Volume page. This page allows you to set the balance between the Arranger parts [Acc1, Acc2, Acc3, Acc4, Acc5, Acc6, Acc Drum, Acc Bass] and the Realtime parts [Upp1, Upp2, Lower, MBass, MDrum]. In other words, this is a master volume (i.e. balance) page.



Volume pages in Song mode

If you select the Volume mode while the [GM/GS MODE] indicator is lit (which means that the RA-800 is in GM/GS mode), the volume pages look as follows:



The setting range and group features are the same as in Arranger mode, but the ADR, ABS, etc. parameters are replaced by a SNG parameter that allows you to set the overall volume of the Standard MIDI File you are playing back or going to play back using the RA-800's Recorder.

5 Tone pages and Tone mode

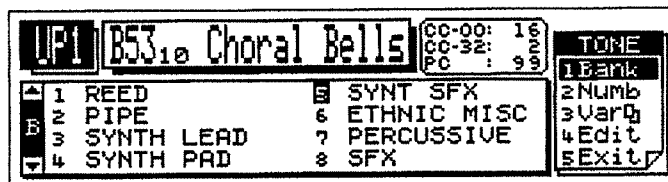
Tone selection

- Master page: TONE buttons
Or [TONE] + knobs

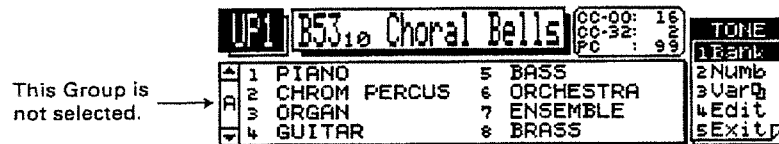
The Tone mode is similar to the Volume mode in that selecting a Tone for a Realtime part automatically calls up a Tone mode page. The indicator of the [TONE] button starts flashing, and the Tone page disappears after a few seconds of inaction.

Pressing the [TONE] button, on the other hand, activates the Tone mode (indicator lights), which you then have to leave manually by pressing [TONE] again.

Whenever you press the [GROUP] button to select Group A, B, C, or D, if you select this page by pressing [F1] after selecting the Tone mode, or if you rotate the [ACCOMP/GROUP] knob while the Tone mode page is displayed, the display responds with a list of the Banks that can be selected in that Group:



You could now check the contents of the banks of the other groups by pressing [PAGE] ▼ or [PAGE] ▲. Doing so does not activate the Group, whose name appears in the scroll bar, for selection, which is indicated by a positive Group name display:



Also note the “MIDI address” of the currently active Tone or Variation (B5310 Choral Bells): To select the above Tone via MIDI, you must transmit control change CC0 “16”, CC32 “2”, and program change “99” (in that order) to the RA-800 (either via MIDI or from a Standard MIDI File). These values will also be transmitted or recorded whenever you select a Tone on the RA-800.

See the *Player's Guide* for details about Tone selection and the pages that are displayed.

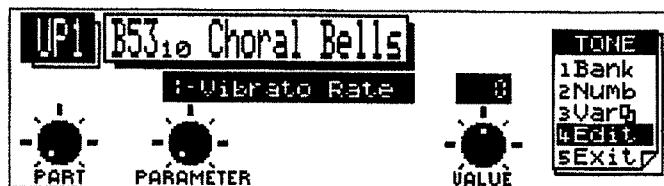
Tone Edit (Part parameters)

In the Tone mode, pressing [F4] (Edit) selects the Part edit page, where you can set the values of the RA-800's Part parameters.

All Part parameters are “NRPN’able”, meaning that you can assign them to a control change number and edit them using other control change messages.

The values of these parameters can be positive (+) or negative (–) because they are relative parameters that change the preset values of the Tone assigned to the currently active part.

Note: Selecting another Tone after editing the Part parameters does not reset the Part parameters.



Vibrato

Vibrato Rate [-64~+63]

This parameter adjusts the speed of the pitch modulation. Positive (+) settings make the preset pitch modulation faster, and negative (-) settings make it slower.

Vibrato Depth [-64~+63]

This parameter adjusts the intensity of the pitch modulation. Positive (+) settings mean that the “wobble” becomes more prominent, while negative (-) settings make it shallower.

Vibrato Delay [-64~+63]

This parameter adjusts the time required for the vibrato effect to begin. Positive (+) settings increase the time before vibrato will begin, and negative (-) settings shorten the time.

TVF

TVF Cutoff [-63~+63]

Positive Cutoff settings mean that more overtones will be allowed to pass, so that the sound becomes brighter. The further this value is set in the negative direction, the fewer overtones will be allowed to pass, and the sound will become softer (darker).

Note: For some sounds, positive (+) Cutoff settings will cause no noticeable change because the Cutoff is already set to its maximum value.

TVF Resonance [-64~+63]

This is a parameter one invariably associates with a synthesizer. When the Resonance value is increased, the overtones in the area of the cutoff frequency will be emphasized, creating a sound with a strong character.

Tip: The Resonance parameter can be used to reduce the volume of a sound’s low frequency content, effectively duplicating the Bass control of an amplifier. This only works, however, when the Cutoff Freq is relatively high (to avoid an unnatural boost of middle frequencies) and for values between +1 and +15. Higher values lead to a noticeable Resonance effect.

Note: For some sounds, negative (-) settings of Resonance will cause no noticeable change in the sound.

Env(elope)

Env Attack [-64~+63]

This parameter adjusts the onset of the sound. Negative values speed up the attack, so that the sound becomes more aggressive.

Env Decay [-64 ~+63]

This parameter adjusts the time over which the sound will fall from the highest point of the attack down to the sustain level.

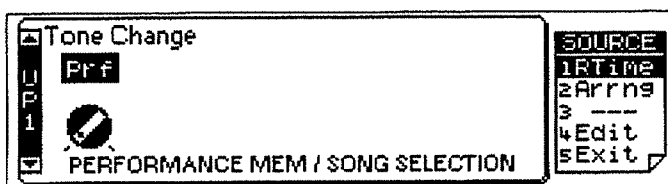
Note: Percussive sounds usually have a sustain level of "0". Piano and guitar sounds are in this category. Holding the keys for a long time will thus have little effect on the duration of the notes you are playing.

Env Release [-64~+63]

This parameter adjusts the time over which the sound will decay after the note is released until it is no longer heard. The cutoff frequency will also fall according to this setting.

Tone Change

The Tone Change switch on this page allows you to specify which program change and bank select messages should be executed. There is one page for the Realtime part Tone Change switches (press [SHIFT]+[F1]) and another one for the Arranger part Tone Change switches (press [SHIFT]+[F2] or just [F2]).

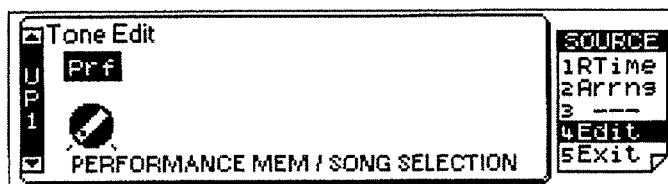


Select the part using the [PAGE] ▲▼ buttons and select Prf or Sng (for Realtime parts), or Prf or Arr (for Arranger parts).

Prf	Tone selection remains in effect until you select another Tone or Performance Memory.
Sng	In this case, the Realtime Tone assignments are affected by program change messages included in the Standard MIDI File you are playing back. When set to Sng, the program change switch is set to respond to program change messages on disk. Note that, as far as the Realtime parts are concerned, there is little difference between Prf and Sng as long as you don't play back a Standard MIDI File.
Arr	In this case, the Arranger Tone assignments are affected by program change messages included in the Music Style you are playing back.

Tone Edit (Source switch)

- Master page: [TONE]→[SHIFT]+[F4]



The Tone Edit switch on this page allows you to protect your settings from modifications due to settings included in the Standard MIDI File you are playing back (for the Realtime parts).

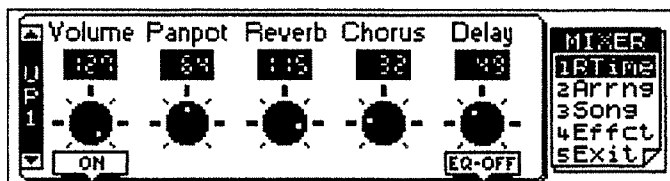
Select the part using the [PAGE] ▲▼ buttons and select Prf or Sng.

Prf The Part parameter settings remain in effect until you select another Performance Memory (or until you change them).

Sng In this case, the Realtime Part Parameters are affected by NRPN messages included in the Standard MIDI File you are playing back. In other words, when set to Sng, Part Parameter settings will change if the Standard MIDI File contains other settings.
Note that there is little difference between Prf and Sng as long as you don't play back a Standard MIDI File.

6 Mixer mode

While on the Master page, you can access to the Mixer mode by pressing [F1]. Doing so will call up a page similar to the following:



(Seeing that the RA-800 is equipped with a page memory function, it may jump to another page when you select the Mixer mode.) The function keys [F1], [F2], and [F3] allow you to select the section of parts to be edited. After selecting the section (RTIME, Arrng, or Song), choose the part you want to edit using the [PAGE] ▲▼ buttons.

Using the knobs below the desired parameter you can easily change the values of the selected part.

Selectable parts: (Realtime parts) Upper 1, Upper 2, Lower, M. Bass, M. Drum, (Arranger parts) A.Drum, A.Bass, Acc1~Acc6, (Song parts) Sng1~Sng16.

Mixer\RTIME and Mixer\Arrng pages

- Master page: [F1] (Mixer)→ [F1] (RTIME) or [F2] (Arrng)
Part selection: [PAGE] ▲▼

Volume (0~127)

Use the [DRUMS/PART] knob to set the volume of the selected part. The value “0” means that the part in question will not be audible, while “127” is the maximum volume.

Note: Though polyphony is no problem on the RA-800, bear in mind that the value “0” does not mean that the part does not use the required number of voices. If you do not need a part in a given situation, mute it using the ON/OFF switch.

On/Off (part mute)

Use the Part Select [M.DRUMS] button to activate (On), or mute (Off) the selected part. The Mute setting of a part can be saved to a Performance Memory.

When a part is on, its name, shown in the scroll bar, appears in uppercase letters (e.g. UP1). If the part is Off, its name is displayed in lowercase letters (e.g. up1).

Note: The MIDIParam Part Switch parameter allows you to specify whether muting a part also means that it no longer sends MIDI data.

Panpot (0~64~127, Rnd)

Allows you to set the stereo position (pan) of the selected part. The value “0” means that the part will be panned hard left, “64” is the center position (same volume for the left and right channels), while “127” means that the part will be panned hard right. Select “Rnd” if the part in question is to “jump around” the stereo image in a random (unpredictable) way.

Reverb (0~127)

The Reverb send level is assigned to the [BASS/BANK] knob. You can set a different value for each part. The value "0" means that the part in question will not be processed by the Reverb effect, while the value "127" represents the maximum Reverb level. This parameter has the same function as an AUX Send control on a mixing desk.

Chorus (0~127)

The Chorus send level is assigned to the [LOWER/NUMBER] knob. You can set a different value for each part.

Delay (0~127)

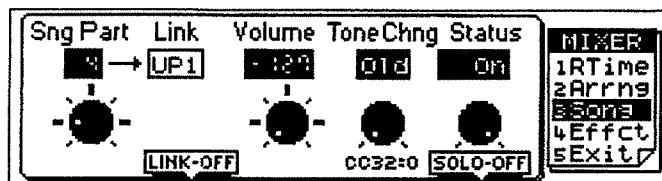
The Delay send level can only be set for Realtime parts. Arranger parts cannot be processed by the Delay effect.

Equalizer (On/Off)

Use the [UPPER1] button to switch the equalizer on or off for the selected part. Select Off if you do not want the selected part to be processed by the two-band equalizer.

Mixer\Song page

While in the Mixer mode, press [F3] to call up the following page:



Here you can set different parameters for the Song parts played by the Recorder. Note that these parameters supplement or modify the settings contained in the Standard MIDI File. Contrary to the RTime and Arrng pages, these parameters are control parameters rather than absolute settings.

Sng Part (1~16)

Start by selecting the desired Song part with the [DRUMS/PART] knob before modifying the other parameters on this page.

Link (On/Off)

The Link parameter is only available for Song parts assigned to Realtime parts. These assignments are preset and in no way selectable:

Part	Standard MIDI File part	MIDI channel	RA-800 Realtime Part
Sng10	Drums	10	Manual Drums
Sng2	Bass	2	Manual Bass
Sng3	Chord backing	3	Lower
Sng4	Solo/melody	4	Upper1
Sng6	Counter-melody	6	Upper2

When Link is on, you can control a Realtime part and let the corresponding linked Song part select Tones for you. This is a useful feature for Minus One performance (see "Status" below), where you mute the melody (usually Song part 4) to play it yourself. If you are happy with the Tone selection contained in the Standard MIDI File, set Link to On. If not, set Link to Off and select the desired Tone for the melody part you are playing in realtime. Tone selection for the Song parts can be saved to a Performance Memory.

Volume (-127~+127)

The [BASS/BANK] knob allows you to modify the volume of the selected part by adding or subtracting the value you set here to the volume value contained in the Standard MIDI File. This is what we call a *relative* setting because it does not replace the original volume setting – it corrects it.

Tone Change (Old, New)

The [LOWER/NUMBER] knob is used to select Old or New Tones. You may remember (see the Player's Guide) that the RA-800 provides two Tone levels: New, i.e. the new RA-800 Tones, and Old, the SC-55 Tone level. The setting you specify here is only taken into account if the value for CC32 (Bank Select) contained in the Standard MIDI File equals "0" or is missing.

If you also own an SC-88 Sound Canvas, this concept is easy to grasp. CC32= 0 means "do not leave the current level" (which may be either A/B= New, or C/D= Old).

Status (On/Off) (Minus One)

The Status parameter allows to set the current track status (Mute or On). When set to Mute, the selected Song part no longer sounds. Selecting Mute is tantamount to activating the Minus One playback feature on other instruments. Set Status to On for all Song parts that should be played back.

Solo On/Off

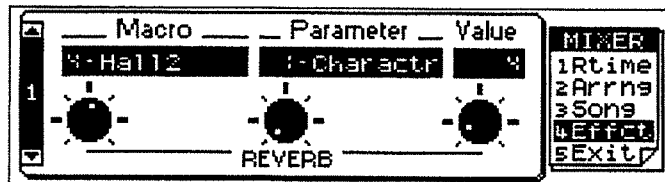
Use the [UPPER1] button to activate (Solo On) or deactivate (Solo Off) the Solo mode for the selected part. Solo On means that only the part whose name currently appears in the scroll bar will be audible. You can solo several parts, but bear in mind that only the part whose name appears in the page scroll bar on the Mixer\Song page will be soloed when you leave the Mixer mode.

Mixer\Effect pages

The Effect level has four pages: 1 Reverb, 2 Chorus, 3 Delay, and 4 Equalizer, that can be selected using the [PAGE] ▲▼ buttons.

There is one Reverb, one Chorus, one Delay, and one Equalizer whose settings apply to all parts assigned to them using the Reverb Send, Chorus Send and Delay Send (if available) parameters, or the Equalizer On/Off switches.

Reverb page



- Master page: [F1] (Mixer)→ [F4] (Effect)
Effect: [PAGE] ▲▼ (select page 1)

Only one parameter can be set at a time. That doesn't mean, however, that the invisible parameter values are no longer valid when you select another parameter. Beware of selecting Macros after tailoring the parameters to your needs, because selecting another Macro means that all Parameter values will be reset to their default values.

Macro

Room1~3	These Reverbs simulate the Reverberation of a room. They provide a well-defined spacious Reverberation.
Hall1, Hall2	These Reverbs simulate the Reverberation of a concert hall. They provide a deeper Reverberation than the Room Reverbs.
Plate	This effect type simulates a plate Reverb (a studio device using a metal plate to simulate natural Reverb).
Delay	This is a conventional Delay that produces echo effects.
Panning Delay	This is a special Delay in which the Delayed sounds move left and right. It is effective when you are listening in stereo.

Macro allows you to select one of the effects (called *Character*) of the above table as well as suitable (but preset) values for all Reverb parameters (Pre-LPF~RevPreDlyT). The difference between Macro and Character (see below) is that the former does what its name implies: it calls up a program Macro that includes Character selection and Parameter settings for the selected Character (or type).

Note: Seeing that Delay usually only works for one part, use the dedicated Delay for echo effects. That way, the Reverb effect can be used to "deepen" the sound field.

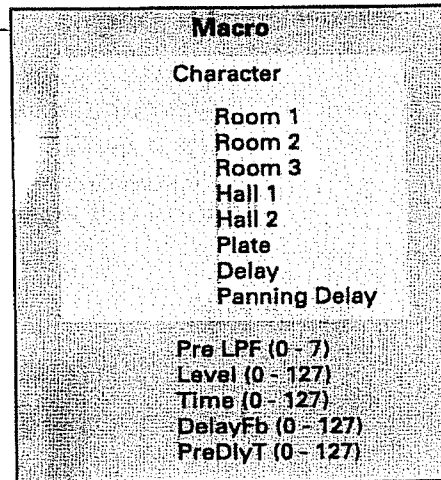
Reverb parameters

Character [0~7]

This parameter allows you to select a Reverb effect. Confused? Character only specifies the Reverb type you need. It does not load preset values for the Pre-LPF~RevPreDlyT parameters. As a matter of fact, Character (i.e. the choice of the Reverb type) is itself a Macro parameter. That explains why you can select the Room 2 Macro and set Delay for Character. Selecting another Character thus does not reset the other Parameter values to their factory settings. A Macro, on the other hand, calls up a Reverb type and suitable settings for that effect.

A Macro includes an effect Character (type) and preset values for the other parameters

Character only specifies the Reverb type you need. All other parameters can be set separately and do not change when you select another Character.



Pre-LPF (0~7)

A low pass filter can be applied to the Tone signal sent to the Reverb to cut the high frequency range. Higher values will cut more of the high frequencies, resulting in a more mellow Reverberation. Note that this parameter only applies to the signal that is sent to the Reverb effect. If you want to cut high frequencies of the direct Tone signals, use the Equalizer instead.

Rev Level (0~127)

This parameter sets the volume of the Reverb effect (or the Master AUX Return signal if you are used to thinking in mixing console terms). Higher values result in louder Reverberation.

Rev Time (0~127)

This parameter sets the time over which the Reverberation will continue. Higher values result in longer Reverberation.

Rev Delay Fb (0~127)

This parameter is only available when you select Rev Charac 6 Delay, or 7 Panning Delay. It sets the way in which Delays repeat. Higher values result in more repeats.

RevPreDlyT (0ms~127ms)

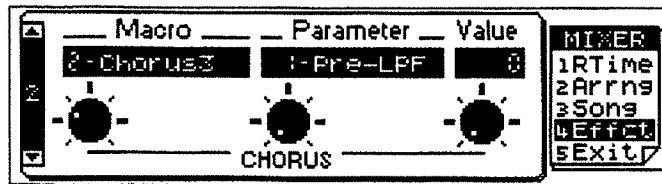
This parameter sets the time interval between the original ("dry") signal and the onset of the selected Reverb effect. Higher values result in a longer pre-Delay time, simulating a larger reverberant space.

Value

Use the [UPPER/VARIATION] knob to specify a value for the selected Parameter. For clarity's sake, we put the parameter range next to the respective parameters (see above).

Chorus page

- Master page: [F1] (Mixer)→ [F4] (Effect)
Effect: [PAGE] ▲▼ (select page 2)



Macro

Chorus broadens the spatial image of the sound, adding richness. You can choose from 8 types of Chorus.

Chorus1~4	These are conventional Chorus effects that add spaciousness and depth to the sound.
-----------	---

Feedback Chorus	This is a Chorus with a flanger-like effect and a soft sound.
-----------------	---

Flanger	This is an effect sounding somewhat like a jet aeroplane taking off and landing.
---------	--

Short Delay	This is a Delay with a short Delay time.
-------------	--

Short Delay (FB)	This is a short Delay with many repeats.
------------------	--

Note: Seeing that Delay usually only works for one part, use the dedicated Delay for echo effects. That way, the Chorus effect can be used to fatten the stereo image.

Chorus parameters

Cho Pre-LPF (0~7)

A low pass filter can be applied to the sound sent to the Chorus to cut the high frequency range. Higher values will cut more of the high frequencies, resulting in a more mellow Chorus sound.

Cho Level (0~127)

This parameter sets the overall volume of the Chorus effect. If only one Tone contains too much Chorus, reduce its Chorus Send value rather than the Cho Level value.

ChoFeedback (0~127)

This parameter sets the level at which the Chorus sound is re-input (fed back) into the Chorus. By using feedback, a denser Chorus sound can be created. Higher values result in a greater feedback level.

Cho Delay (0~127)

This parameter sets the Delay time of the Chorus effect. Higher values will cause greater deviation in pitch of the Chorus sound.

Cho Rate (0~127)

This parameter sets the speed (frequency) at which the Chorus sound is modulated. Higher values result in faster modulation.

Cho Depth (0~127)

This parameter sets the depth at which the Chorus sound is modulated. Higher values result in deeper modulation.

Cho → Reverb (0~127)

This parameter sets the amount of Chorus sound that will be sent to the Reverb. Higher values result in more sound being sent. The value "127" effectively allows you to connect the Chorus and Reverb effects in series (Chorus before Reverb). If you do not wish the Chorus signal to be processed by the Reverb effect, set this value to "0".

Cho→Dly (0~127)

This parameter sets the amount of Chorus sound that will be sent to the Delay. Higher values result in more sound being sent. The value "127" effectively allows you to connect the Chorus and Delay effects in series (Chorus before Delay). If you do not wish the Chorus signal to be processed by the Delay effect, set this value to "0".

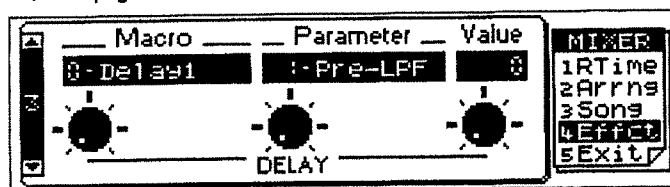
Tip: Use this parameter whenever you want to process an Arranger part using the Delay effect (see below). If all you are interested in is Delay, set the Chor Delay, Cho Rate and Cho Depth parameters to 0. Bear in mind, though, that doing so means that a "proper" Chorus effect is no longer available.

Value

Use the [UPPER/VARIATION] knob to specify a value for the selected Parameter. For clarity's sake, we put the parameter range next to the respective parameters (see above).

Delay page

- Master page: [F1] (Mixer) → [F4] (Effect)
- Effect: [PAGE] ▲▼ (select page 3)



Macro

Delay creates echoes. It is also possible to give depth and width to a sound by adding a short Delay to the original sound (a technique often used for rock-'n'-roll songs and in Karaoke bars). You can choose among 10 types of Delay.

Delay1~3	These are conventional Delays. 1, 2 and 3 have progressively longer Delay times.
Delay4	This is a Delay with a rather short Delay time (kind of "slap back" effect).
Pan Delay1~3	The Delay sound moves between left and right. This is effective when listening in stereo. 1, 2 and 3 have progressively longer Delay times.
Pan Delay4	This is a rather short Delay with the Delayed sound moving between left and right. It is effective when listening in stereo (kind of stereo "slap back" effect).
Dly To Rev	Reverb is added to the Delay sound which moves between left and right. It is effective when listening in stereo.
PanRepeat	The Delay sound moves between left and right channels, but the pan position is different from the effects listed above. It is effective when listening in stereo.

Delay parameters

Dly Pre-LPF (0~7)

A low pass filter can be applied to the sound coming into the Delay to cut the high frequency range. Higher values will cut more of the high frequencies, resulting in a more mellow Delay sound.

Dly Time C (0.1ms~1.0s)

The Delay effect of the RA-800 allows you to set three Delay times that are only useful when listening in stereo: center (C), left (L), and right (R). Delay Time Center sets the Delay time of the Delay located at the center.

DlyTRatioL/R (4%~500%)

This parameter sets the Delay time of the Delay located at the left or right as a percentage of the central Delay. The value "100%" means that the left or right Delay repeats at the same speed as the center Delay.

Dly Level C/L/R (0~127)

These parameters set the volume of the central, left, and right Delays. Higher values result in a louder Delay.

Dly Level (0~127)

This parameter sets the overall volume of the three Delays (center, left and right). Higher values result in a louder overall Delay.

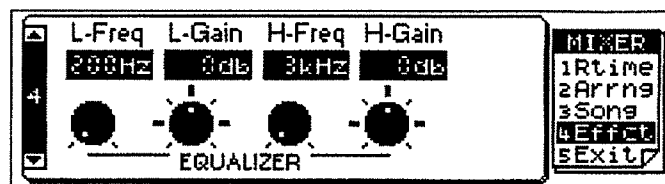
Dly Fback (-64~ 0 ~+63)

This parameter specifies the number of times the Delay will repeat. With a value of "0", the Delay will not repeat. With higher values there will be more repeats. With negative (-) values, the center Delay will be fed back with inverted phase. Negative values are effective with short Delay times.

Dly→Rev (0~127)

This parameter sets the amount of Delay sound that is sent to the Reverb. Higher values mean that the Reverb portion will be more prominent in the Delay signal. Be careful not to overdo this effect because it tends to blur the sound image.

Equalizer page



- Master page: [F1] (Mixer)→ [F4] (Effect)
Effect: [PAGE] ▲▼ (select page 4)

This Effect page contains the EQ settings that will be applied to all parts whose EQ switch is set to On. Just like for the other effects (Reverb, Chorus, and Delay), there is only one equalizer whose settings are shared by all RA-800 parts.

L-Freq (200Hz, 400Hz)

L-Freq sets the low frequency range that can be cut or boosted using the L-Gain parameter. This is a shelving-type filter that will also affect frequencies lower than the one you set here.

L-Gain (-12~0~12dB)

This parameter allows you to boost (positive) or cut (negative values) the L-frequency (and all frequencies below the L-Freq value). Set L-Gain to "0" if you do not want to change the lower frequencies.

Note: Reducing the low frequency content may sometimes affect the volume of the Tones being processed by the equalizer. Always check the balance after setting the L-Gain value, and correct it if necessary "Volume control (fader assignments)".

H-Freq (3kHz, 6kHz)

H-Freq sets the high frequency range that can be cut or boosted using the H-Gain parameter. This is a shelving-type filter that will also affect frequencies higher than the value you set here.

H-Gain (-12~0~12dB)

This parameter allows you to boost (positive values) or cut (negative values) the H-frequency (and all frequencies above the H-Freq value). Set H-Gain to "0" if you do not want to change the higher frequencies.

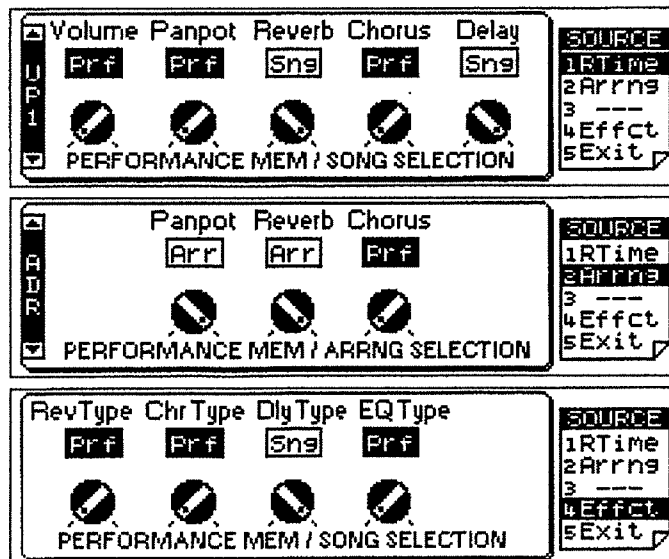
Source pages

The Source pages of the Realtime, Arranger, and Song parts contain a number of switches that allow you to specify whether the part selected using [PAGE] ▲▼ is to use your own/the Performance Memory settings, or the settings of the Music Style or Standard MIDI File you are playing back.

Selecting Prf means that the RA-800 will use the settings you have just made, or the ones contained in the Performance Memory you selected last. Arr and Sng, on the other hand, mean that the selected part will change in response to the data contained in the Music Style or Song you are playing back.

Note: You cannot select Arr for Realtime parts or effect parameters. That setting is only available for Arranger parts. Likewise, you cannot select Sng for Arranger parts as there is no internal link between the RA-800's Recorder and Arranger.

- Master page: [F1] (Mixer)→ [SHIFT] + [F1] (RTime), [F2] (Arrng) or [F4] Effect)



The available switches vary according to the Source page you select. Not all parameters can be protected from being modified by the Music Style or Song you are playing back. Seeing that the parameters are pretty self-explanatory, we will not discuss them in great detail here. Save for the effect Source switches, they are all covered in the *Player's Guide*. There are a few things to bear in mind, though:

- (1) Reverb, Chorus, and Delay refer to the respective send levels of the selected part. They are no effect on/off switches but rather switches allowing you to specify whether or not the effect send level is to change in response to Arranger or Song data.
- (2) Since the Arranger parts cannot be processed by the Delay (at least not in a direct way), there is no Delay Send Source switch on the Arrng Source page.
- (3) The Type settings on the effects Source page refer to the Macros.
- (4) The Source switch settings can be saved to a Performance Memory.

7 Parameter mode

As stated in the *Player's Guide*, the parameter mode contains parameters that apply to different aspects of your RA-800:

Global parameters

Master Tune, Metronome functions, Memory Protect, etc.

Arranger parameters

Chord Family Assign, Part Range, etc.

Realtime parts

Upper 2 Tune, Upper1 & 2 Portamento, etc.

Controller parameters

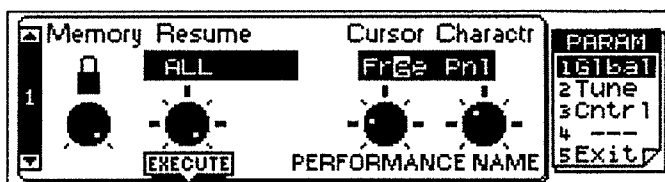
Expression Pedal assignment, etc.

Performance Memory parameters

Resume, Performance name.

Source switches for some of these parameters

Parameter\Glb\1 page



- ↳ Master page: [F2] (Param) → [F1] (Glb)
[PAGE] ▲▼ (select page 1)

Memory locked/unlocked (Global parameter)

This parameter allows you to activate (lock) or deactivate (unlock) the Memory Protect function. At power on, the RA-800 always turns on its Memory protection to avoid accidental erasure of data. Note that is next to impossible to accidentally overwrite a Performance Memory or MIDI Set because you have to keep the [WRITE] button depressed while specifying the memory number. Furthermore, you are given the opportunity to turn off Memory protection before writing data to one of the RA-800's memories.

Resume (Performance Memory parameter)

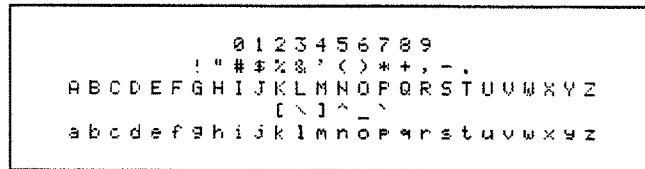
The Resume function allows you to specify which settings of the Performance Memory 00 are to be loaded. Performance Memory 00 FreePanl contains a number of default settings and, more importantly, Source switch settings that allow a Standard MIDI File or Music Style to change the affected parameters in accordance with the settings it contains.

You do not need to load all settings of Performance Memory 00 if there are parameter values you do not wish to overwrite.

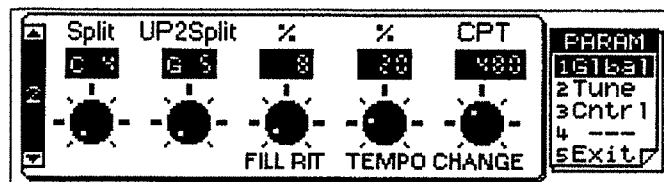
Settings to load	Meaning
Mixer	Only the Mixer settings of Performance Memory 00 will be loaded.
Parameter	Only the settings of the Parameter level will be loaded.
Tone	Only Tone selection of Performance Memory 00 will be loaded.
All	All settings of Performance Memory 00 will be loaded.

Cursor Character (Performance Memory parameter)

These two “parameters” are used to name or rename the currently selected Performance Memory. The available characters are:



Parameter\Global\2 page



- Master page: [F2] (Param)→[F1] (Glb) [PAGE] ▲▼ (select page 2)

Split (C3~C6) (Realtime parts, Arranger parameter, Basic Channel control)

This parameter specifies the split point between the Right and Left sections of the Arranger and the Split Keyboard Mode. It can be set from C3 to C6. The default value is C4.

UP2Split (C#3~C#6) (Realtime parts)

This parameter specifies the split point between the Upper1 and Upper2 sections. It only takes effect when the indicator of the [UPPER2 SPLIT] button lights. The Upper2 split point can be set anywhere between C#3 and C#6. The default value is G5.

Fill Rit (15%~90%) (Arranger parameter)

This parameter defines the intensity of the ritardando achieved during playback of a fill (To Original or To Variation). Note that Fill Rit only applies to fills and that the [FILL RIT] indicator must light for the ritardando to be executed.

Here is an example: if the Style tempo is currently set to 100, while Fill Rit% is set to 10%, selecting a Fill In with the [FILL RIT] function On will progressively slow down the playback tempo to 90. At the end of the fill, however, the previously set tempo value (e.g. ♩ = 100) will be recalled.

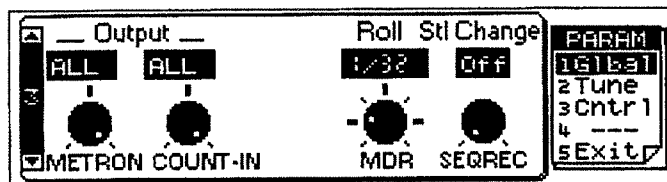
Tempo Change% (0%~100%) (Arranger parameter)

This parameter defines the tempo change ratio during normal Style playback. This is the value that will be reached at the end of the CPT period (see below). The Tempo Change% applies to both the [RIT] (gradual slow-down) and the [ACC] (gradual tempo increase) functions and requires that either button be pressed (corresponding indicator must light).

Tempo Change CPT (15~3825CPT) (Arranger parameter)

The CPT value specifies the time it takes before the Tempo Change% value is reached. Seeing that one crotchet (quarter note) equals 120CPT, we strongly advise you to select multiples of 120CPT, e.g. 240 (one 2/4 bar), 360 (one 3/4 bar), 480 (one 4/4 bar), etc.

Parameter\Global\3 page



- ↳ Master page: [F2] (Param) → [F1] (Global)
[PAGE] ▲▼ (select page 3)

Metronome Output (MDR, EXT, ALL) (Global parameter)

This parameter allows you to select the output assigned to the general metronome, i.e. the one that sounds during Style and Song playback. The metronome may help you practise difficult parts, yet the most obvious use for the Global metronome is to supply a click for a drummer or other musician you play with.

The User Style metronome can be programmed separately.

MDR	The click sound is produced by the Rim Shot of the Manual Drums part, which means that it will be output from the STEREO OUTPUT R, L/MONO jacks.
EXT	The click sound is sent to the dedicated Metronome Output on the rear panel.
ALL	The click sound is sent both to Metronome Output and to the current Drum Set.

Count-In (MDR, EXT, ALL) (Arranger parameter)

This parameter specifies the output the count-in clicks are sent to. Count-ins can be used in Song mode (to count in one bar before song playback start) and are always used in User Style record mode.

MDR	The count-in sound is produced by the Rim Shot of the Manual Drums part, which means that it will be output from the STEREO OUTPUT R, L/MONO jacks.
EXT	The count-in sound is sent to the dedicated Metronome Output on the rear panel.
ALL	The count-in sound is sent to both Metronome Output and the current Drum Set.

Roll Resolution (Manual Drums part)

This parameter specifies the resolution of the Roll function. It can be set to:

1/16	Sixteenth	1/32	Thirty-second
1/16t	Sixteenth triplet	1/32t	Thirty-second triplet
1/16s	Sixteenth swing	1/32s	Thirty-second swing

The default value is 1/16. As stated in the *Player's Guide*, selecting 1/32 or even shorter values may result in machine-gun type rolls at high tempo values. Always specify the resolution after setting the Style or Song playback tempo, or change it to a more usable value if your setting turns out to be too optimistic to produce natural rolls.

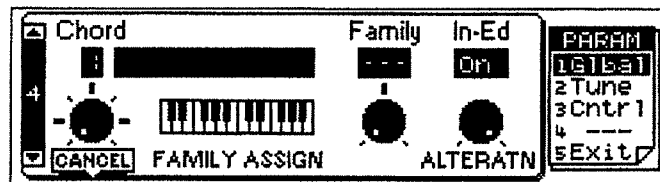
Stl Change (Chord Sequencer parameter)

This parameter allows you to specify what should be recorded by the Chord Sequencer (see the *Player's Guide*). Select On if you want the Chord Sequencer to record all settings relating to the Arranger (Style changes, Arranger part volume changes, tempo changes, etc.), and Off if the Chord Sequencer is to record only the NTA notes.

Setting	What is recorded
On	Chord changes, Style Changes, Division Changes (Fills, Intro, Ending, Variation/Original, Basic/Advanced), Volume Changes for all Accomp Parts.
Off	Only chord changes (NTA notes).

Note: See "Style Change" (Player's Guide) for full details about NTA.

Param\Glb\4 page



- ⊃ Master page: [F2] (Param) → [F1] (Glb\4)
[PAGE] ▲▼ (select page 4)

Chord Family Assign (Arranger parameter)

The fourth Param\Glb page is entirely devoted to the assignment of more "elaborate" chords to one of the three modes (major, minor, seventh) of the RA-800's Arranger. If the current Performance Memory or the currently active registration does not contain any assignment, you can only assign Chord memory 1. Only after assigning a chord to Chord memory 1 can you select memory 2 etc. (and also 1 by going backwards).

Chord

Indicates the number of the selected Chord memory. Play a chord in the chord recognition area, whose name is then displayed to the right of the memory number.

Family

After specifying the chord, you must use the Family parameter to assign it to one of the three Modes: select Maj (major), min (minor) or 7th (seventh). Whenever you play the

newly assigned chord in the chord recognition area of the external controller, the accompaniment pattern corresponding to the mode you select here will be triggered. Use this parameter to assign “6”, “7/11” etc. chords to a particular Mode.

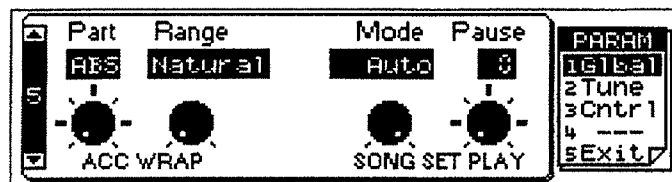
You may remember that Modes are in fact “invisible” divisions that cannot be selected on the front panel – while others, such as Basic/Original, Advanced/Variation, etc., are selectable either manually or via an optional FC-7.

Alteratn

The Alteration parameter allows you to specify whether your “elaborate” chords should be played during playback of an Intro (In) or Ending (Ed). When set to on, playing a complex chord at the onset of an Intro or Ending may change the chord sequence of the entire Intro or Ending pattern to a degree that you may have your doubts about the “sanity” of your RA-800.

In most cases, you will probably select Off, so that your favorite G7,5 etc. chord only takes effect after the Intro is finished (or does not influence the chord sequence of the Ending pattern).

Param\Glb\5 page



- ▷ Master page: [F2] (Param)→ [F1] (Glb)
- [PAGE] ▲▼ (select page 5)

Acc Wrap: Part and Range

As explained in the *Player's Guide*, the Wrap parameter is used to change playback of the selected music Style so that all notes of a given bass line, etc. sound in a natural range. In Natural mode, the Arranger transposes all notes that are too low or too high for the (usually automatically) selected sound one octave up or down. Though useful in most situations, that may result in accompaniment patterns that suddenly jump to another octave when you go from G to F7, for example.

Part (ABS, AC1-AC6) (Arranger parameter)

Use the Part parameter to select the part whose Range setting you wish to change.

Range

Range	Meaning
Natural	The Arranger sounds all notes of the part in question in a range that is natural for the Tone assigned to that part. Notes that are too high or too low are transposed down or up.
Full	In this case, the notes of the accompaniment track are played the way they were programmed. That may be useful when you use the User Style function for sequencing purposes.

Song Set Play

The Song Set Play functions allow you to specify how the selected Song Set should be played back.

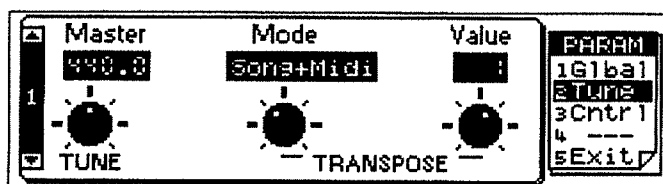
Mode (Auto, Manual)

Select Auto if playback of the next Song in line is to start automatically after the Pause time has elapsed (see below). Select Manual if you wish to be in control of when the next Song is played back.

Pause (0~99 seconds)

The Pause value specifies the blanks between two Songs of a Song Chain. Note that the Pause value is only used when you set Mode to Auto.

Param\Tune\1 page



- Master page: [F2] (Param)→ [F2] (Tune)
[PAGE] ▲▼ (select page 1)

Master Tune (415.3Hz~466.2Hz) (Global parameter)

The Master Tune setting affects the pitch of the entire RA-800. Use this parameter to tune your RA-800 to acoustic instruments that cannot be tuned. In all other cases, set this parameter to 440.0Hz which is the standard pitch for most electronic instruments.

The Master Tune setting can be saved to a Performance Memory, which means that you could use 192 different tunings with your RA-800 – at least in theory.

Transpose Mode (Global parameter)

The Transpose Mode parameter allows you to select which sections of your RA-800 will be transposed when you press the [TRANSPOSE] button (indicator lights) on the front panel.

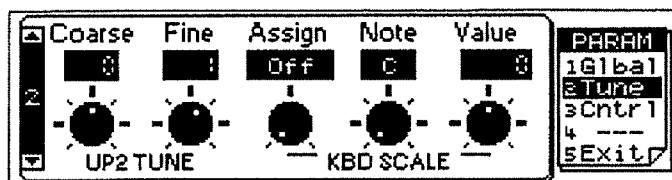
Transpose mode	Explanation
Int	If the [TRANSPOSE] indicator lights, only the Realtime and Arranger parts will be transposed (only valid if the RA-800 is being controlled on the Basic Channel).
Song	Only the Recorder song parts will be transposed.
MIDI	If the [TRANSPOSE] indicator lights, only the notes received via MIDI IN A/B will be transposed (RA-800 control on multiple MIDI channels, which is the case when you use a MIDI accordion, for example). In a way, this is the same as the Rx Shift parameter in the MIDI mode.
Int+Song	If the [TRANSPOSE] indicator lights, the Realtime and Arranger parts (controlled via the RA-800's Basic Channel) as well as the Recorder song parts will be transposed.

Int+MIDI	If the [TRANSPPOSE] indicator lights, the Realtime and Arranger parts (controlled via the RA-800's Basic Channel) as well as all notes received via MIDI will be transposed.
Song+MIDI	If the [TRANSPPOSE] indicator lights, the Recorder song parts as well as all notes received on several MIDI channels will be transposed.
All	All sections will be transposed.

(Transpose) Value (-11~-1, 1~11) (Global parameter)

Use this parameter to specify the transposition interval to be used whenever the indicator of the [TRANSPPOSE] button lights. Note that you cannot set the value "0" because that would effectively turn off the transpose function. Since that can be achieved by pressing the [TRANSPPOSE] button (indicator must go off), there is little point in providing a "0" setting.

Param\Tune\2 page



- Master page: [F2] (Param)→[F2] (Tune)
[PAGE] ▲▼ (select page 2)

Coarse (-24~24) (Upper2 part)

The Coarse parameter allows you to tune the Upper2 part in semitone steps, which comes down to transposing the Upper2 part relative to the Upper1 part. As explained in the *Player's Guide*, Upper2 Coarse (and also Fine, see below) are only useful in situations where both the Upper1 and Upper2 parts are active. Set this value to "-12" to transpose the Upper2 part one octave down, and to "7" to tune it up one fifth. Quite a few users like to assign piano Tones to both Upper parts and then transpose Upper2 one octave up ("12").

The maximum range of this parameter is two octaves down ("-24") or two octaves up ("24").

Fine (-99~99) (Upper2 part)

The Fine parameter is used to detune the Upper2 part relative to the Upper1 part. Since 100 cent equal one semitone, this parameter effectively allows you to program a semitone interval between Upper1 and Upper2. More realistic settings would be "+10" or "-10", though.

Kbd Scale

Use the Kbd Scale parameters whenever you need other tunings than equal temperament. Equal temperament means that the intervals between any two semitones are the same, which is not the case in oriental music, for example, or in baroque music. To untrained ears, tunings that provide varying intervals between semitones may sound flat. But then again, equal temperament sounds strange to other musicians.

Assign (Off, UP1-2, All) (Global parameter)

This parameter allows you to specify which parts should be assigned a different tuning. Off means that the Value settings (see below) have no effect on the equal temperament of the RA-800's parts. If you select UP1-2, only the two Upper parts will be processed by your Value settings. Selecting All means that all Realtime, Song, and Arranger parts will be tuned the way you specify with the Value parameter. This probably only works for a few factory Styles. The RA-800 allows you to program your own Styles that could take advantage of the Kbd Scale function. Besides, you can also load MSE (G-800/RA-800) and MSD User Styles (programmed on an E-96/86).

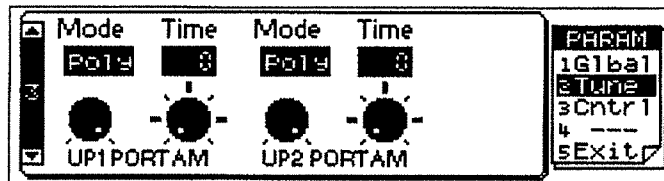
Note (C-B) (Global parameter)

This is not really a settable parameter. Note allows you to select the note whose tuning you want to change. Every note (from C, C#, D, D# etc. to B) can be selected only once, so that the Value setting applies to all notes of the same name, which makes sense, of course.

Value (-128~+128) (Global parameter)

This is where you set the tuning of the selected Note. Since this is a relative parameter, i.e. a parameter that specifies a deviation from the preset equal temperament, the Value can be either positive or negative. Selecting "0" means that the Note's pitch corresponds to the equal temperament value. Seeing that 100 cent equal one semitone you have considerable freedom for programming scales.

Param\Tune\3 page



- Master page: [F2] (Param)→ [F2] (Tune)
[PAGE] ▲▼ (select page 3)

Portamento and Mode (Realtime parts)

Mode UP1 and UP2 (Poly, Mono)

The Mode parameters are used to set the corresponding Upper part to Poly (polyphonic) or Mono (monophonic). Poly means that the Upper part in question can play several notes at a time, so that you can play chords or two voices.

Mono, on the other hand, means that only one note can sound at any one time. The RA-800's Mono modes work according to the "last note priority" principle, which means that, whenever you play two or more notes, only the one whose key you pressed last sounds. Select Mono for instrument sounds that cannot play chords (woodwind, solo brass instruments, etc.).

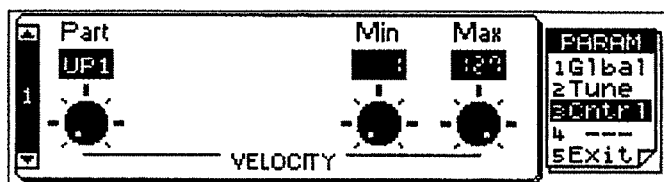
Time (0~127)

Time specifies the Portamento speed. You may remember from the *Player's Guide* that the Portamento effect produces smoother transitions between the notes you play. Setting high

values is effective for synthesizer sounds, especially when you play large intervals (e.g. C1 and then C6).

The value "0" means that the Portamento effect is not active. The Portamento footswitch function allows you to switch the Portamento on and off while you are playing, so that there is no need to set the Time value to "0" at all times. If you select the Portamento footswitch function, the Portamento effect will only be active when you press the optional DP-2, DP-6, or Boss FS-5U.

Param\Cntrl\1 page (Realtime part velocity)



- Master page: [F2] (Param)→ [F3] (Cntrl)
[PAGE] ▲▼ (select page 1)

This page is entirely devoted to the velocity sensitivity settings of the Realtime parts. See the "Param\Cntrl\2 page" for the velocity sensitivity settings of the Arranger parts.

Part (UP1, UP2, LWR, MBS, MDR)

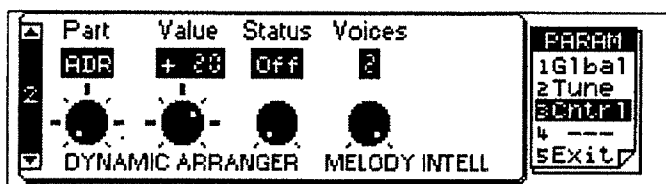
This parameter allows you to select the Realtime part whose settings you wish to change.

Min and Max (1~127)

Min is used to set the smallest velocity value with which the Realtime part in question can be triggered. Except in cases where the part is used to complement another one (usually Upper2 or Upper1), you should leave this value at "1". The value "0", by the way, cannot be selected since that value is taken by most MIDI instruments to signal the end of a note (note-off). The Min value cannot be higher than the Max value.

Max, on the other hand, represents the highest velocity value with which you can trigger the part in question. See "Velocity switching (Min and Max)" in the *Player's Guide* for an example of a useful velocity switching pair. Again, the Max setting cannot be smaller than the Min setting.

Param\Cntrl\2 page



- Master page: [F2] (Param)→ [F3] (Cntrl)
[PAGE] ▲▼ (select page 2)

Dynamic Arranger (Arranger parameters)

Part (ADR, ABS, AC1-AC6)

This parameter allows you to select the Arranger part whose velocity sensitivity you wish to change. As explained in the *Player's Guide*, you can use this parameter to alternate between two accompaniment parts by varying the force with which you strike the keys in the chord recognition area of the external keyboard.

Value (-127~+127)

Set this value to "0" if the Arranger part in question must not respond to the force with which you strike the keys in the chord recognition area. The higher the positive value you set here, the more force is required to have the part in question sound at its maximum value. Negative settings, on the other hand, mean that the volume decreases as your velocity increases.

Note: The velocity Value you specify here will only be used when you set Status to on.

Status (On, Off)

This parameter allows you to switch the Dynamic Arranger function on or off. The setting of this parameter applies to *all* Arranger parts, no matter which part is currently selected.

Melody Intell Voices (1, 2) (Arranger parameter)

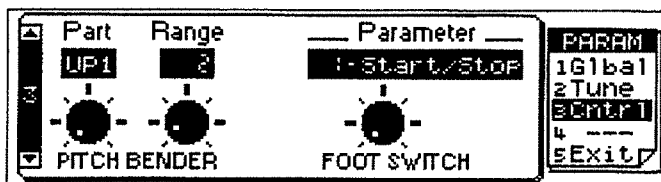
Though played by the Upper2 part, the intelligent melody is controlled by the Arranger. Using it requires that you press the [MELODY INTELLIGENCE] button on the front panel (indicator must light). If, at that time, the Upper2 part is activated, its box on the KBD Mode or ARR Chord page changes to a dotted line to signal that the Upper2 part is now being controlled by the Arranger. Tone selection for the Upper2 part, however, is still possible.

The Melody Intelligence function adds a second (and third) voice to the melody you play using the Upper1 part. As you know, the intelligent melody is based on the chords you play in the chord recognition area of the external keyboard.

Use the Voices parameter to select either 1 or 2 intelligent harmonies.

Param\Cntrl\3 page

- Master page: [F2] (Param) → [F3] (Cntrl)
[PAGE] ▲▼ (select page 3)



Pitch Bender (Realtime parts)

Part (UP1, UP2, LWR, MBS, MDR)

This parameter allows you to select the Realtime part whose pitch bend range you wish to set. Surprising though it may be, you can also specify a pitch bend range for the Manual

Drums part. Selecting values between “2” and “7” allows you to achieve interesting effects that work well for timpani sounds, for example.

Range (0~24)

This parameter is used to specify the maximum pitch shift that can be achieved by turning the Bender lever fully to the left or right. Since there is only one Range parameter, it applies to both upward and downward bends.

Note: The Range value you set here will only be effective when you turn the Bender lever fully to the left (downward bends) or to the right (upward bends). Intermediary positions of the lever produce the resulting intermediary bend value.

Foot Switch Parameter (Realtime parts/Arranger parameter)

This parameter allows you to specify the function of the optional DP-2, DP-6, or Boss FS-5U connected to the FOOT SWITCH jack on the rear panel. The default setting is Start/Stop, which allows you to start and stop Arranger playback. Note also the Soft and Sostenuato options as well as the possibility to select Hold.

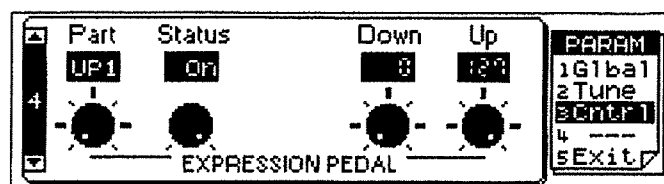
Though there is a dedicated SUSTAIN FOOTSWITCH jack that serves the same purpose, you may want to select Hold for certain Performance Memories as doing so allows you to save money by buying only one DP-2, DP-6, or Boss FS-5U. The trade-off is, however, that selecting Hold means that you cannot assign another option to the optional footswitch. Remember that the Footswitch assignment can be saved to a Performance Memory.

Here are the functions the optional DP-2, DP-6, or Boss FS-5U connected to the FOOT SWITCH jack can perform:

Parameter	Explanation
Start/Stop	Starts and stops Arranger playback. Same function as [START/STOP].
Play/Stop	Starts and stops Recorder playback. Same function as the Recorder [PLAY▶/STOP■].
Intro	Selects the Intro of the current Style Type during Arranger playback. Same function as [INTRO].
Ending	Selects the Ending of the current Style Type (Basic or Advanced). Same function as [ENDING].
Fo/Fv	Triggers either the To Original or To Variation fill, depending on whether the Original or Variation Division is currently active. Upon completion of the Fill, the Arranger will play the Division selected by the Fill.
Bsc/Adv	Selects either the Basic (Bsc) or Advanced (Adv) Type, depending on which one is active at the time you press the footswitch. Same function as [ADVANCED].
Org/Var	Selects either the Original or Variation Division of the currently active Type, depending on which one is active at the time you press the footswitch. Same function as [VARIATION].
Inversion	Switches the Chord Inversion function on and off.
Kbd Rec	Allows you to switch the keyboard recognition on and off. When off, the notes you play in the Chord Recognition area of the external keyboard no longer cause the Arranger to play another chord. Especially important if you trigger the RA-800 using a MIDI guitar.
Prf Up	Selects the next Performance Memory (i.e. A12 if A11 is currently active). <i>Note:</i> Seeing that the footswitch function can also be saved to a Performance Memory, the memory you select using the footswitch in Prf Up mode may contain another footswitch assignment so that you can no longer select the next Performance Memory (i.e. A13) by foot.
Fade Out	Starts the Fade Out. Same function as [FADE OUT] on the front panel.
Portamento	Switches the Portamento function on and off.
Soft	In this case, the footswitch functions as Soft pedal (a pedal found on grand and digital pianos that reduces the volume). <i>Note:</i> This function only works for the Realtime parts.
Sostenuto	In this case, the footswitch functions as Sostenuto pedal (another pedal found on grand and digital pianos that allows you to sustain only those notes you played at the time you pressed the pedal). <i>Note:</i> This function only works for the Realtime parts.
Hold	The footswitch has the same function as a DP2, DP6, or Boss FS5U connected to the SUSTAIN FOOTSWITCH jack.

Param\Cntrl\4 page: Expression pedal

- Master page: [F2] (Param) → [F3] (Cntrl)
[PAGE] ▲▼ (select page 4)



Part

The first parameter on this page is used to select the Realtime (UP1, UP2, LWR, MBS, or MDR) or Arranger part (ADR, ABS, AC1~AC6) whose Expression settings you wish to edit.

Note: There is no need to set these parameters if you don't have an EV-5 or EV-10 Expression pedal connected to the EXPRESSION PEDAL jack.

Status (Realtime part & Arranger parameter)

Select On if you wish to control the selected part's volume by foot, or Off if you don't want the selected part's volume to change whenever you use the Expression pedal.

Up (0~127)

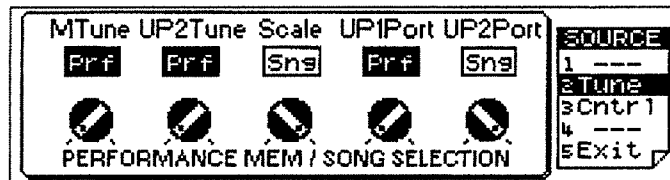
The value you set here is the Expression volume (CC11) value that the selected part will have whenever the Expression pedal is closed (minimum setting). In fact, this parameter duplicates the function of the knob at the left side of an EV-5, for example.

Down (0~127)

The value you set here represents the maximum volume you can achieve for that part by fully depressing the Expression pedal (maximum setting).

Note: It is perfectly possible to set the Up value to "127" and the Down value to "0", so that the corresponding part will only sound when the Expression pedal is up (closed).

Source\Tune page



- Master page: [F2] (Param) → [SHIFT] + [F2] (Tune)

As explained in the *Player's Guide*, the Source switches allow you to protect your Param settings from data coming from the Standard MIDI File you are playing back using the RA-800's Recorder. The fact that only Prf and Sng are selectable is a clear indication that all Source switches, except the MTune switch, apply only to the Realtime parts.

Source switches

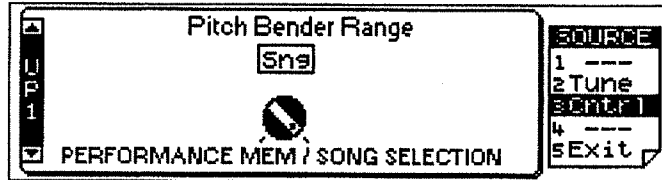
Seeing that all Source switches on this page work the same, we will discuss them together. Select Prf if the respective parameters must not change in response to MIDI messages of that type contained in the Standard MIDI File you are playing back with the internal Recorder. Prf means that either your own settings or the settings of the selected Performance Memory will be used.

Sng means that the respective MIDI messages contained in the Standard MIDI File may change the parameter(s) in question.

Source	Meaning
MTune	The Master Tune setting.
UP2Tune	The Coarse and Fine settings of the Upper2 part.
Scale	Tuning values of the Kbd Scale function,
UP1Port	The Portamento Time value for the Upper1 part.
UP2Port	The Portamento Time value for the Upper2 part.

Source\Cntrl page

The Source switches on this page only apply to the Realtime parts. Use [PAGE] ▲▼ to select the part whose source setting you wish to modify (its name appears in the scroll bar).



- ↳ Master page: [F2] (Param) → [SHIFT] + [F3] (Cntrl)
See "Source switches" for an explanation of the Source switch options.

Pitch Bender Range: The pitch bend Range setting of the currently selected part.

8 User Style mode

The User Style mode is used to program your own accompaniments (called User Styles). Programming User Styles does not necessarily mean that you record everything from scratch because the RA-800 also allows you to copy tracks (or even entire chunks) from preset Music Styles (in ROM) or other User Styles. Choose whichever is more convenient for your application.

When programming User Styles, bear in mind that you are only recording the accompaniment. If you also record the melody or an accompaniment line that characterizes a particular song, the User Style in question will not work for other songs. In other words, try to think in terms of "style" when programming User Styles (house, rave, samba, polka, etc.) if you want a Style to be "universally" usable (for a given type of music).

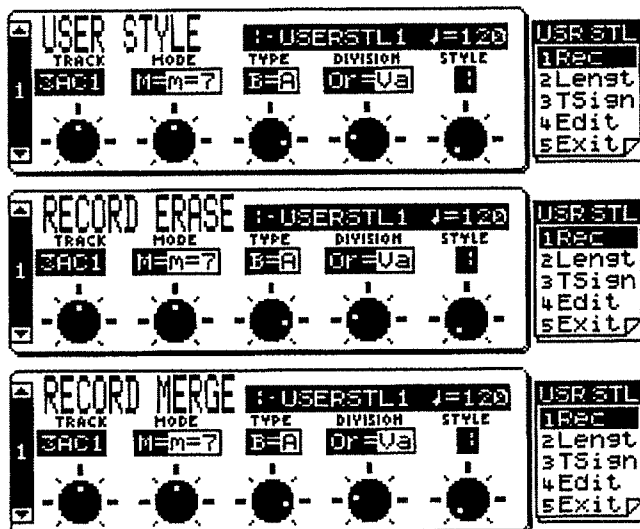
Furthermore, though possible, programming chord changes for the Basic/Original, Basic/Variation, Advanced/Original, and Advanced/Variation patterns is not a very good idea. After all, the chord changes can be performed in realtime by playing them in the Chord Recognition area of the controller. Though this warning may sound obvious, you will find that working on a pattern basis rather than along song part lines requires a lot of thinking and discipline. – But then again, the User Style functions are so easy to use that programming Styles on a song-by-song basis is not as time-consuming as it may at first look.

Note: Let us agree to use the word pattern to refer to any possible Mode/Type/Division combination. Example: "Basic/Original, M" is one possible accompaniment pattern (as is "Advanced, Fill-In-to Original".)

Note: The User Style mode can only be selected in the RA-800's Arranger (i.e. normal) mode. If the function assigned to [F4] reads "Lyrics", press the [GM/GS MODE] button (indicator must go off).

UsrSt\Rec\1 pages

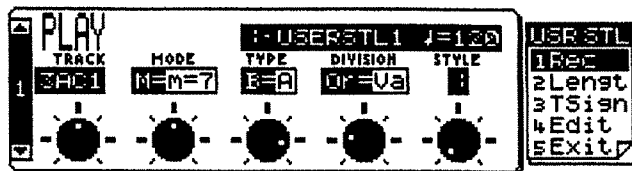
- Master page: [F4] (UsrSt) → [F1] (Rec)
[PAGE] ▲▼ (select page 1)



Is displayed if the selected User Style memory doesn't yet contain data.

Is displayed when you press [REC] after selecting a track that doesn't yet contain data or if you selected Erase.

Is displayed when you press [REC] after selecting a track that already contains data or if you selected Merge.



Is displayed when you press [START/STOP] or Recorder [PLAY▶/STOP■] to listen to your pattern in the User Style mode.

Track (1ADR, 2ABS, 3AC1, 4AC2, 5AC3, 6AC4, 7AC5, 8AC6)

Use this parameter to select a track of the currently active pattern (see Mode, Type, and Division). If the name of that track is displayed in lowercase characters (e.g. 3ac1), that track is still empty. Note that a track whose Length has been specified is no longer considered empty (and therefore displayed in uppercase, e.g. 3AC1) because it already contains the number of rests equivalent to the Length you set.

User Style memory and name

This is where the number of the selected User Style memory and the User Style's name appear. If you haven't yet specified a name, it will be USERSTL followed by the number of the selected memory.

Tempo

The same window also displays the current playback and recording tempo. Feel free to change the tempo with the [TEMPO] dial but remember that the current tempo value will be recorded next time around and regarded as preset tempo for your User Style.

Style pattern selection

Mode

Use this parameter to select the major, minor, and/or seventh level. All settings involving one or two "=" symbols mean that the first (white-on-blue) pattern you record will be automatically copied to the other (blue-on-white) Mode(s). This is what we called *cloning* (working with clones) in the *Player's Guide*.

The available options are:

Display function	Options	Explanation
Mode	M	Record only the major pattern.
	M=m	Record the major pattern and copy it to the minor pattern.
	M=m=7	Record the major pattern and copy it to the minor and seventh pattern.
	Other options: m, m=M, m=7, m=M=7, 7, 7=M, 7=m, 7=M=m	

Type

Use this parameter to select the Type, as it is called here. Think of a Type as the degree of complexity of a Style, whereby *Basic* represents the "easy" level, while *Advanced* usually contains more elaborate accompaniments (unless programmed otherwise). You may

remember from the *Player's Guide* that there are two looped versions per Type: Original and variation.

Display function	Options	Explanation
Type	Bsc	Record only the Basic division.
	Adv	Record only the Advanced division.
	B=A	Record the Basic division and copy it to the Advanced division.
	Other options: A=B	

Division

A Division is a specific accompaniment type, such as the Intro, a Fill, the Ending of the current accompaniment pattern.

Display function	Options	Explanation
Division	Or	Record only the Original division.
	Va	Record only the Variation division.
	Fo	Record only the Fill-In to Original.
	Fv	Record only the Fill-In to Variation.
	In	Record only the Intro.
	Ed	Record only the Ending.
	Other options: Or=Va, Va=Or, Fo=Fv, Fv=Fo, In=Ed, Ed=In	

Note: The order in which you select the Mode, Type, and Division is of no importance.

It is also possible to clone other patterns *after* recording the first one. To do so, select the required "=" options for the Mode, Type, and Division, and start recording. Wait until the count-in is finished and stop recording after the first or second beat (by pressing either Recorder [PLAY ►/STOP ■] or [START/STOP]). Don't play anything on your controller. The rest of the "original pattern" will automatically be copied to the selected "clone patterns".

Note: The clone function always operates in Erase mode, even though you may have selected Merge for the "original pattern". Thus, before cloning other patterns, make sure the clone destinations contain no data you wish to keep.

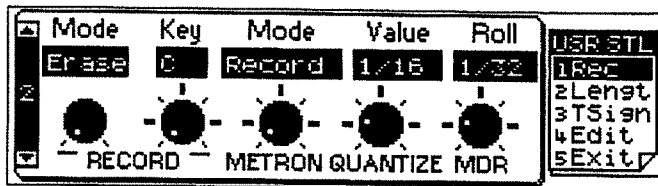
Note: Since the clone function automatically transforms major chords and scales into minor and/or seventh equivalents to meet the requirements of the minor and seventh modes, nothing should stop you from using it. That is also true of automatic transformations of major patterns that are being cloned during the recording of a seventh pattern, for example.

Style (1~8)

The knob assigned to the Style parameter ([UPPER/VARIATION]) allows you to select the User Style Memory you wish to program.

UsrSt\Rec\2 page

- Master page: [F4] (UsrSt) → [F1] (Rec)
[PAGE] ▲▼ (select page 2)



(Record) Mode (Erase, Merge)

This is where you select the record mode, i.e. what is going to happen to the data of the currently selected pattern. In Erase mode, all data of the selected track are replaced by the new data you record. Erase is automatically selected for empty tracks.

Merge means that the new data you record will be added to the existing data on that track. Select Merge to add a few notes here and there, to “memorize” the address of another Tone or Drum Set, or to modify the settings on page 4 (see below).

Key (C, C#, D, Eb, F, F#, G, Ab, A, Bb, B)

This parameter allows you to tell your RA-800 what key you are going to record the track in. Specifying the key before recording is crucial for realtime use of that track or pattern. The chord recognition system of the Arranger is indeed based on the assumption that all patterns are in the key of C.

Thus, whenever you play a C (in Arranger Intelligent mode) or C chord in the chord recognition area, the Arranger will use the original notes of the pattern you recorded (no realtime transposition). If you recorded that pattern in F# without telling the RA-800, F# is what you will hear when you play a C or C chord in the Arranger mode.

Therefore, if you wish to record in D, select D. Failure to do so may go unnoticed in the User Style mode, but once you are back in the Arranger mode, you will soon notice that “you’ve got a problem”.

The RA-800 does not require you to record all User Style patterns in C, which is, of course, very convenient. Remember, though, that the transposition required to meet the Arranger’s “C assumption” can only be correct if you tell the RA-800 what key you record in.

Note: There is no need to specify the key for IADR tracks.

(Metron) Mode







The default setting of this parameter is Record, so that the User Style metronome is only audible whenever you record a new track. During playback of that track, the metronome remains silent. Here are the other metronome modes:

Record	The metronome only sounds during User Style recording.
Play	The metronome only sounds during User Style playback in User Style mode.
Rec&Ply	The metronome sounds both during recording and playback.
Always	The metronome even sounds while the User Style is not playing.

(Quantize) Value

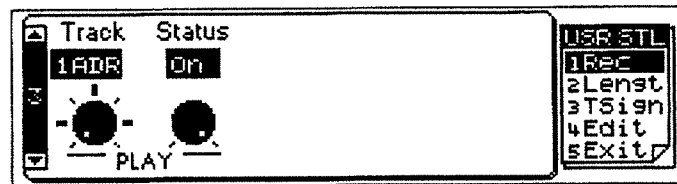
This parameter allows you to set the Quantize value to be used during User Style recording. As explained in the *Player's Guide*, you may set this parameter to Off and only quantize those tracks whose timing is definitely too loose using the Track Quantize function (see below).

In any case, the available values for automatic quantization during recording are:

1/8	Eighth note (quaver)		1/32	Thirty-second note	
1/8t	Eighth note triplet (1/12)		1/32t	Thirty-second note triplet (1/48)	
1/16	Sixteenth note (semiquaver)		1/64	Sixty-fourth note	
1/16t	Sixteenth note triplet (1/24)		Off	No quantization	

Note: Be sure to always select the value that equals the shortest note you are going to record. Otherwise, your recording no longer sounds the way you played it.

UsrStl\Rec\3 page



- Master page: [F4] (UsrStl) → [F1] (Rec)
[PAGE] ▲▼ (select page 3)

The parameters on this page are in fact playback parameters that allow you to mute the tracks you do not want to hear while recording. Muting User Style tracks is only necessary for tracks that already contain data.

Note: This mute function only applies to the User Style mode. Tracks you mute here still sound in the Arranger mode. If you do not need a certain part, delete it using Track Delete.

Track (1ADR~8AC6)

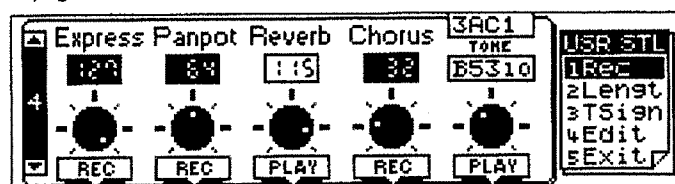
Use this parameter to select the track to be muted.

Status

Select Off for the tracks you wish to mute. To turn them back on again, select On.

UsrStl\Rec\4 page

- Master page: [F4] (UsrStl) → [F1] (Rec)
[PAGE] ▲▼ (select page 4)



User Style patterns not only contain note and pitch bend/modulation data but also a number of other settings, such as the volume, the stereo position (pan), the Reverb and Chorus send values. The parameters on this page allow you to set and modify those non-note data.

The first time you record something on a track, the default values of these parameters are recorded along with the notes you play.

REC/PLAY switches

The switches below each parameter are used to specify whether or not the corresponding Expression, Panpot, etc. value should be recorded. The first time you select a track for recording, all these switches are automatically set to REC.

The second and all subsequent times you record to this track (in Merge mode), all switches will be set to PLAY, meaning that the changes you make will not be recorded. Thus, the values of the corresponding parameters will jump back to their recorded positions.

Select REC whenever one of the parameters on this page is to be assigned another value permanently. The corresponding parameter value is then displayed white-on-blue. (In the PLAY mode it is displayed blue-on-white.)

Express (0~127)

Use the Express(ion) parameter to change the volume of the track whose name appears in the right-hand corner. The track has to be selected on the `UsrStlRec\I` page.

As stated in the *Player's Guide*, setting this parameter is only meaningful after recording a few tracks. It allows you to establish the right balance between tracks.

Panpot (Rnd, 0~64~127)

Use the Panpot parameter to position the selected track in the stereo sound field. Values between "0" and "63" shift the part further to the left, while values between "65" and "127" shift it further to the right. "64" is the dead center (default value). You could also select Rnd to obtain random jumps between the left and right channels. Since the jumps are not predictable, Rnd is probably only useful for "gimmick" kind of counter-melodies.

Reverb (0~127)

This parameter sets the Reverb send level for the selected track. "0" means that the part in question is not processed by the Reverb effect, while "127" represents the maximum effect depth.

Chorus (0~127)

This parameter sets the Chorus send level for the selected track. "0" means that the part in question is not processed by the Chorus effect, while "127" represents the maximum effect depth.

Tone/Drum Set

Depending on the track you selected, the message between the track name and the Tone or Drum Set address will read Tone or Drum Set. By now, you know that you can only select

Drum Sets for the 1ADR track/part. For all other tracks, the Tone message will be displayed.

You can select Tones and Drum Sets using either the TONE selection keys on the front panel or the [UPPER/VARIATION] knob.

General remark

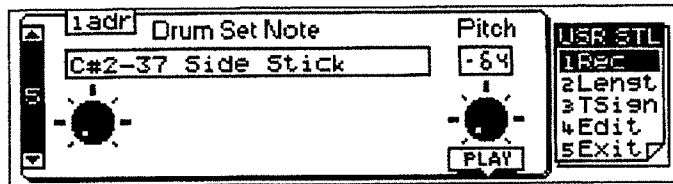
The default settings for these parameters are as follows:

Parameter	1ADR	2ABS	3AC1	4AC2	5AC3	6AC4	7AC5	8AC6
Expression	127	127	127	127	127	127	127	127
Pan	64	64	64	64	64	64	64	64
Reverb	100	100	100	100	100	100	100	100
Chorus	0	0	0	0	0	0	0	0
Tone/Drum Set	A11	A11	A11	A11	A11	A11	A11	A11

These values will be automatically recorded the first time you select a track for recording. You can select other Tones/Drum Sets on almost any UsrSt\Rec page (but only with the TONE buttons). Selecting the right Tone or Drum Set before you start will help you “get in the mood”. Leave the other settings for later, when you have a clearer idea about the sound image.

UsrSt\Rec\5 page

- Master page: [F4] (UsrSt) → [F1] (Rec)
[PAGE] ▲▼ (select page 5)



This page is entirely devoted to the 1ADR (Accompaniment Drums) track. It allows you to modify the pitch of certain drum and percussion sounds (see below).

Note: The UsrSt\Rec\5 display page only appears if you selected the 1ADR track before calling up this function.

Note name-number-sound name

Use the [DRUMS/PART] knob to select the drum or percussion sound whose pitch you wish to change.

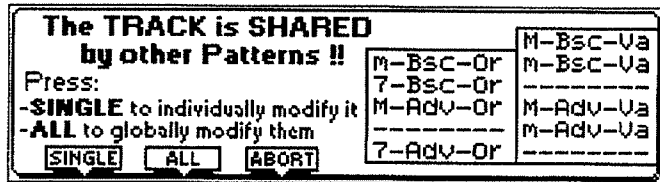
Note	Sound
C#2/37	Side Stick
D2/38	Snare Drum 1
E2/40	Snare Drum 2
F2/41	Low Tom 2
E3/52	Chinese Cymbal
G#3/56	Cowbell

Pitch (-64~64)

This parameter allows you to set the pitch of the selected drum or percussion sound. Select "0" if you need the original pitch of the sound in question. Positive values raise the pitch, while negative values lower it.

Cloning and edit functions and possible warnings (Shared)

When re-recording or editing just one pattern of a clone group, the following warning may be displayed:



It means that you are about to do something that will disrupt the uniformity of the patterns you have chosen to be identical (by cloning them).

Note that this page only appears if, after cloning several patterns, you decide to only redo or edit the M/Bsc/Or (or Or-M-Bsc) pattern, for example. Since the RA-800 "knows" which tracks are clones, it will warn you that you are about to record or edit a version without copying it to the "shared" patterns. For your reference, the names of the shared patterns appear in two windows (one for Original, and one for Variation patterns).

That should allow you to make up your mind whether to modify the selected pattern without changing the clones or apply the changes to all clones (or shared patterns).

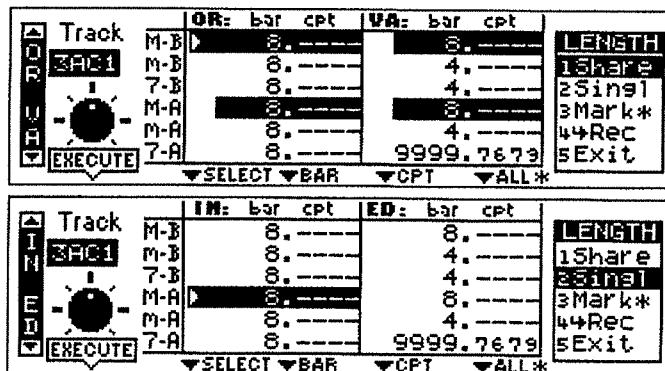
Press [M.DRUMS] (Single) to edit the selected pattern without changing the clones.

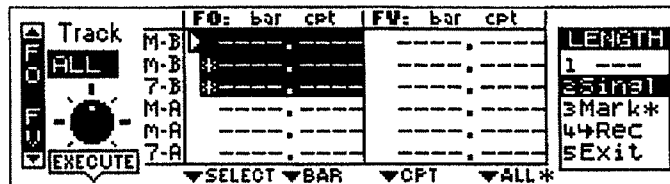
Press [M.BASS] (All) if the clones (or shared patterns) are to change according to the modifications of the pattern you are re-recording or editing.

Press Part Select [LOWER] to leave this page without changing anything.

Length pages

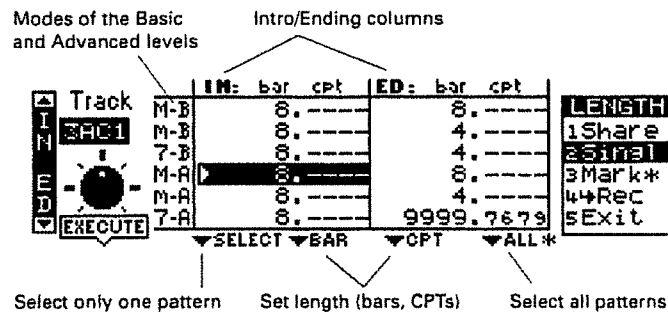
- Master page: [F4] (UsrSt) → [F2] (Lengt)
- [PAGE] ▲▼ (select Or/Va, In/Ed, or Fo/Fv pages)





The Length function allows you to modify the length (number of bars, beats, and clocks) both before or after recording. If used after recording, the data that lie beyond the specified end will be discarded.

Note: There is no way to recall the desired data, so think twice before executing the length function.
Let us briefly look at the information that appears on these pages:



Track (1ADR~8AC6, All)

Track allows you to select the track whose length setting you wish to change. If the length does not have to be the same for all tracks (which goes unnoticed for looped divisions, see "Looped divisions" in the *Player's Guide*), try to use only integer multiples or fractions for longer or shorter tracks (i.e. 4 bars for one track, while the others are 8 bars in length; 3-bar patterns don't loop well over 4- or 8-bar tracks).

[F1] Share

Press [F1] to be able to select all shared patterns in one pass. Doing so ensures that clones are always identical to the original.

[F2] Singl

Press [F2] if you want to select only one pattern of a clone group. Changing the length of a "shared" pattern needs to be confirmed. See "Cloning and edit functions and possible warnings (Shared)".

[F3] Mark *

The Mark function allows you to select several patterns that are not connected to each other. To select a pattern, use the [ACCOMP/GROUP] knob, then press [F3]. Select another pattern on this page and press [F3] again.

[F4] → Rec

Pressing this button will take you back to the UsrSt\NRec level.

Value (time signature)

Use this parameter to specify the time signature of the selected pattern (Division, see below). The most commonly used time signatures are: 2/4, 3/4, 4/4, 6/8, and 12/8. Other values (such as 7/4, 13/8, etc.) are also possible.

Note: When you change the time signature of an already recorded pattern, its notes and events are "reshuffled" according to the new time signature, so that you may end up with incomplete measures. However, none of your data are deleted.

Division (Basc/Adv, Basic, Advanced; Or, Var)

The [ACCOMP/GROUP] and [BASS/BANK] knobs allow you to select the pattern(s) you wish to edit. Whatever your choice, it will always bear on the major, minor, and seventh modes.

Style

This parameter is used to select the User Style whose time signature you wish to change.

[F1] (View)

Press [F1] to have a look at the time signature values of the various patterns.

12/8	In-Bsc	12/8	In-Adv	TSIGN
4/4	Ed-Bsc	4/4	Ed-Adv	1View
4/4	Or-Bsc	3/4	Or-Adv	2Chng
3/8	Va-Bsc	5/4	Va-Adv	3---
4/4	Fo-Bsc	32/32	Fo-Adv	44Rec
12/8	FV-Bsc	6/8	FV-Adv	5Exit

[F2] (Chnge)

Press [F2] to select the page that allows you to modify the time signature settings. The first page (see above) only allows you to view the settings.

[F4]→ Rec

Pressing this button will take you back to the UstrStfRec level.

Execute

Press [UPPER1] to confirm the new time signature and resize the selected pattern(s).

Track Copy

User Stf\Copy\ From 1 page

- Master page: [F4] (UstrStf)→ [SHIFT] + [F1] (Copy)
[PAGE] ▲▼ (select From 1)

[F5] Exit

Press this button to return to the Master page.

Select

The Select function, assigned to the [ACCOMP/GROUP] knob, allows you to position the cursor on the pattern whose length you wish to change.

Bar

The [BASS/BANK] knob allows you to set the length of the selected pattern(s) in steps of one bar. Note that it is perfectly possible to make an existing track longer by specifying a Bar value that lies beyond the last notes (or current end).

CPT

This is another length value that allows you to “fine tune” the length. In most cases, you will probably work with multiples of \downarrow notes (i.e. 120CPT) because 120CPT represent one beat of an X/4 bar (1/4, 2/4, 3/4, 4/4, etc.). All intermediary steps are selectable, though the musical functionality of “x-bars-and-a-bit” patterns is questionable, to say the least.

All

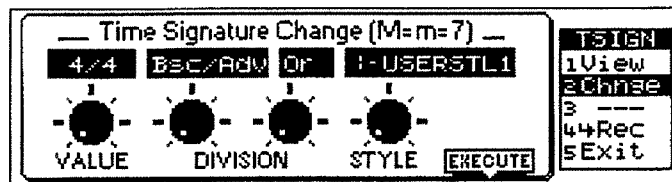
Use the All function ([UPPER/VARIATION] knob) to select all patterns on the current display page (i.e. all Original/Variation, Intro/Ending, or Fill-In To Original/To Variation patterns).

Execute

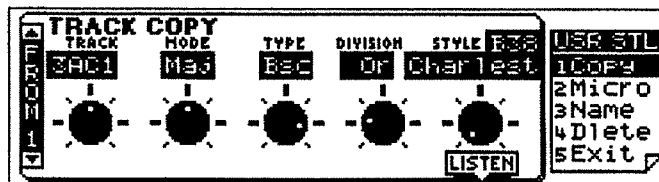
Press [M.DRUMS] to apply the new length value to all selected patterns on this page.

TSign page (time signature)

- Master page: [F4] (UsrStl) → [F3] (TSign)
[F1] (View) or [F2] (Chnge)



The TSign page allows you to check and set the time signature of certain patterns. As you will discover on the View page (see below), the time signature of the major (M), minor (m), and seventh (7) patterns must always be the same. This security system helps you avoid switching to another time signature simply by playing a major, minor, or seventh chord in the chord recognition area of the controller.



The Track Copy function allows you to copy tracks of a ROM Style pattern (A11~B88) or a User Style pattern (U1~U8) to the selected User Style pattern. You can only copy one track at a time (hence the name Track Copy). See "Load User Style/Copy ROM Style" for how to copy entire Style patterns from disk or the internal ROM Style memory.

Track (1ADR~8AC6)

Allows you to select the track whose data you wish to copy (the source pattern). Do not forget to select the desired ROM or User Style (if it isn't already selected). Again, we would like to point out that you can only select one track at a time.

Mode

Allows you to specify one third of the source pattern's address: Maj (major), min (minor) or 7 (seventh).

Type

Allows you to specify the type of the source pattern: Bsc (Basic), or Adv (Advanced).

Division

This parameter is used to select the Division of the source pattern you wish to copy: Or (Original) or Var (Variation).

Style (A11~B88, U1~U8)

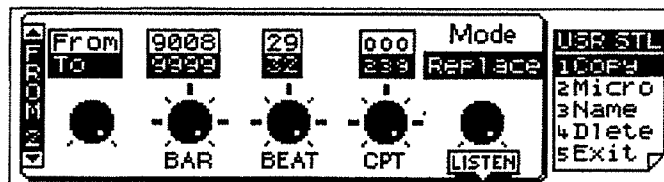
Use this parameter to select the Style that contains the source pattern. The name of that Style is displayed in the second line.

Listen

Press [UPPER1] to listen to the pattern you have selected for copying. Listen always plays back the entire pattern.

User Stl\COPY\ From 2 page

- Master page: [F4] (UsrStl) → [SHIFT] + [F1] (Copy)
[PAGE] ▲▼ (select From 2)



From/To

Use the [DRUMS/PART] knob to select the To or From level. From refers to the position where the edit operation is to begin. That position is specified in a Bar-Beat-CPT format. To designates the position where the edit operation is to end (Bar-Beat-CPT value). Always check whether you have selected the right level (From or To) before setting the following parameters.

Bar (1~9999)

This is where you specify the bar position. By default, the From and To values are set to the beginning and end of the selected track(s). Note that the To value always refers to the end of the longest track.

Beat (1~[number of beats per bar])

This is where you specify the beat position. The number of selectable beats obviously depends on the time signature of the selected pattern.

CPT

This is where you specify the CPT position of the beginning and end of the pattern to be copied. Unless you do not need all notes within the last bar, you should leave the default setting.

Mode (Replace, Merge)

Selects the Copy mode:

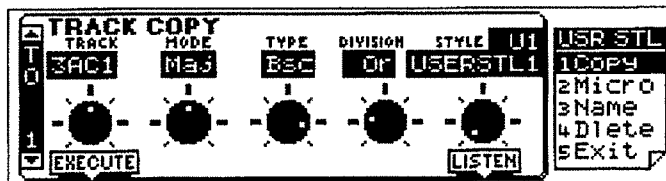
Copy mode	Explanation
Replace	The data in the selected range will be copied to the destination track and overwrite all data (of the destination track) in the selected source track range.
Mix	The data in the selected range will be added to any existing data on the destination track.

In either case, the length of the destination track may change to include all data of the source track. In other words, you may find that the destination track is longer after executing the copy function. Therefore...

Note: If the User Style memory you wish to copy to already contains data, save it to disk before copying. The RA-800 has no Undo function. Saving a Style to disk before copying will allow you to load the previous version in case something goes wrong.

User Stl\Copy\ To 1 page

- Master page: [F4] (UserStl) → [SHIFT] + [F1] (Copy)
[PAGE] ▲▼ (select To 1)



This page allows you to select the address the selected source pattern is to be copied to (the destination pattern). Please be aware of the following restrictions:

1ADR patterns can only be copied to 1ADR tracks.

2ABS patterns can only be copied to 2ABS tracks.

AC track (e.g. 3AC1~8AC6) can be copied to any AC track – but never to a 1ADR or 2ABS track.

Looped patterns cannot be copied to one-shot patterns.

Intros can only be copied to Intros, Endings only to Endings, and Fill-Ins only to Fill-Ins.

If the destination track or pattern Division is set to a "forbidden" value, the RA-800 automatically selects the corresponding source value.

For example: if you selected a 1ADR track as source and the 3AC1 track as destination, the RA-800 automatically selects "3AC1" as source track.

Track, Mode, Type, Division

See page 55 for details.

Style

Selects the destination User Style memory. Only User Style memories can be selected here.

Execute

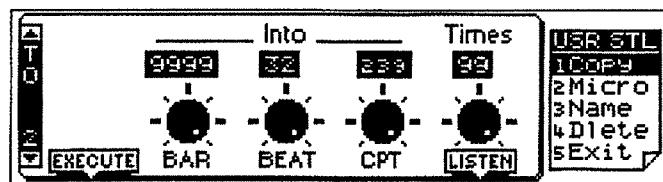
Press [M.DRUMS] to copy the selected source data if you only wish to make one copy. Otherwise, go on to the next display page.

Listen

Press [UPPER1] to listen to the destination pattern you are about to overwrite. Listen always plays back the entire pattern.

User Stl\Copy\ To 2 page

- Master page: [F4] (UsrStl)→ [SHIFT] + [F1] (Copy)
[PAGE] ▲▼ (select To 2)



This page allows you to set the Into position, i.e. the bar, beat and CPT value the first data of the source pattern will be copied to.

Bar, Beat, CPT

See page 56 for details.

Times (1~99)

Sets the number of copies you wish to make. Note that the value "3" means that you will end up with 3 contiguous copies, whereby the second copy is placed immediately after the first, etc.

Execute

Press [M.DRUMS] to copy the selected source data.

User Style Edit mode

Most display pages of the User Style Edit mode feature a →REC function that allows you to jump back to the first User Style\Rec page. Use it after editing a track (or all tracks) to record new material straight away.

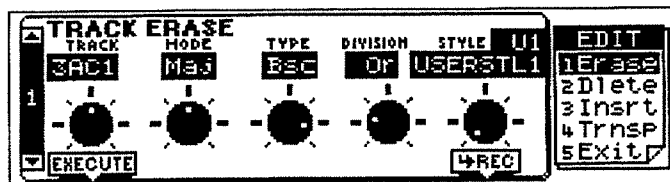
Before discussing the various User Style Edit functions, we would like you to remember the following: certain functions allow you to select the data type to be edited. Whenever that is the case, you can select one of the following messages. Let us call these the Data types.

Parameter	Meaning
All	All editable parameters listed below.
Note	Only note messages.
Modul	Only modulation messages (CC1 in MIDIese).
PanPt	Only pan (or Panpot) messages (CC10).
Expre	Only Expression messages (CC11).
RevrB	Only Reverb send messages (CC91).
Chrus	Only Chorus send messages (CC93).
PChng	Program change messages
PBend	The pitch bend range (i.e. the pitch change that can be obtained by turning the Bender lever fully to the left or right).
NRPN	Non registered parameter number (see the chapter about MIDI for more information about NRPN).

Track Erase

Edit\Erase\1 page

- Master page: [F4] (UsrStl)→[F4] (Edit)→[F1] (Erase)
[PAGE] ▲▼ (select page 1)



Track Erase allows you to selectively delete data either within a specified range of the pattern(s), or from the entire track(s). In All mode, Erase will substitute the required number of rests for the data you delete, so that you end up with the equivalent number of blank measures. If you also want to eliminate the measures themselves, use Track Delete.

Track (1ADR-8AC6, All)

Allows you to select the track you wish to edit. Don't forget to select the desired User Style memory if it isn't already selected (see below). You can also select All here, in which case the operation applies to all tracks of the selected pattern.

Mode

Allows you to select the mode of the pattern to be edited: Maj (major), min (minor) or 7 (seventh).

Type

Allows you to select the pattern type to be edited: Bsc (Basic), or Adv (Advanced).

Division

This parameter is used to select the Division of the pattern: Or (Original) or Var (Variation).

Style (U1~U8)

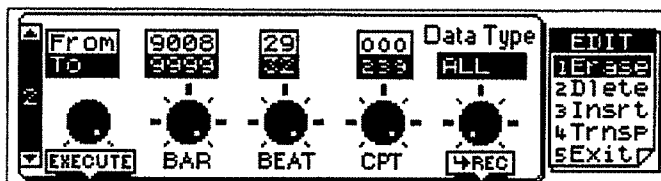
Use this parameter to select the Style that contains the pattern to be edited. The name of that Style (either the default setting, USERSTL X, or the name you or someone else programmed) is displayed in the second line.

Execute

Press [M.DRUMS] to edit the data right away. The following parameters allow you to narrow down the scope of the edit operation. If you wish to edit the entire pattern, there is no need to fine-tune your settings. Just confirm the command by pressing [M.DRUMS].

Edit\Erase\2 page

- Master page: [F4] (UsrStl)→ [F4] (Edit)→ [F1] (Erase)
[PAGE] ▲▼ (select page 2)



From/To

Use the [DRUMS/PART] knob to select the To or From level. From refers to the position where the edit operation is to begin. That position is specified in a Bar-Beat-CPT format. To designates the position where the edit operation is to end (Bar-Beat-CPT value). Always check whether you have selected the right level (From or To) before setting the following parameters.

Bar (1~9999)

This is where you specify the bar position. By default, the From and To values are set to the beginning and end of the selected track(s). Note that the To value always refers to the end of the longest track.

Beat (1~[number of beats per bar])

This is where you specify the beat position. The number of selectable beats obviously depends on the time signature of the selected pattern.

CPT

This is where you specify the CPT position of the beginning and end. Unless you do not need to edit all the selected data within the last bar, you should keep the default setting. Note that the Micro mode allows you to edit the data on an event basis, which is more precise because there you *see* the events to be edited, which is not the case here. If you only wish to edit one event (or message), you should definitely do so in the Microscope mode.

Data Type

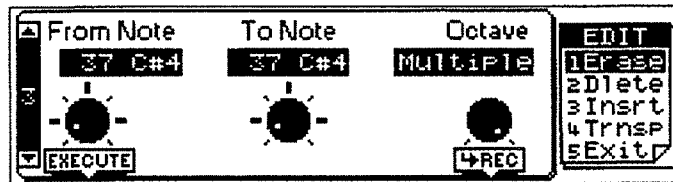
Allows you to select the data to be edited. See the table on page 50 for a list of the editable data types.

Execute

Press [M.DRUMS] to edit the data right away. The following parameters allow you to narrow down the scope of the edit operation. If you wish to edit the entire pattern, there is no need to fine-tune your settings. Just confirm the command by pressing [M.DRUMS].

Edit\Erase\3 page

- Master page: [F4] (UsrStl)→[F4] (Edit)→[F1] (Erase)
[PAGE] ▲▼ (select page 3)



You only need to set the parameters on this page if the selected Data Type (see above) is Note. In all other cases, there is little point in setting the values on this page because you can only set a range (From/To) for notes. That is why this page is only displayed when the selected Data Type is Note.

From Note (C-1-G9)

This parameter allows you to set the lower limit of the note range to be modified within the specified From/To time range (see the second display page). If you only wish to edit one note, set the same value for From Note and To Note.

Note: If you select Octave= Multiple, you only need to set the correct From Note/To Note range without having to worry about the octave (you can set the C-1-G-1 range, for example to edit these notes in all octaves).

Note: The above settings (37 C#4) are only examples. The correct note name for note number 37 is, of course, C#2.

To Note (C-1-G9)

This parameter allows you to select the upper limit of the note range you wish to edit. Select the correct value if not all notes are to be edited. See also the two notes under "From Note (C-1-G9)".

Octave (Multiple, Single)

If the selected note range should be edited in all octaves, select Multiple. If the edit operation must only bear on the notes within the selected range, set this parameter to Single.

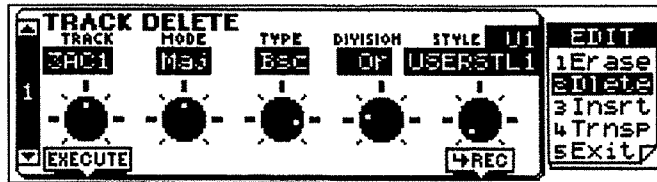
Execute

Press Part Select [M.DRUMS] to confirm your settings and edit the data.

Track Delete

Edit\Dlete\1 page

- Master page: [F4] (UsrStl)→ [F4] (Edit)→ [F2] (Dlete)
[PAGE] ▲▼ (select page 1)



Contrary to the Erase function, Track Delete also erases the measures, so that all measures that lie behind the To position, will be shifted towards the beginning of the track(s). Since Delete also disposes of the measures, you cannot choose the data type to be erased.

Track (1ADR-8AC6, All)

Allows you to select the track you wish to edit. Don't forget to select the desired User Style memory if it isn't already selected (see below). You can also select All here, in which case the operation applies to all tracks of the selected pattern.

Mode

Allows you to select the mode of the pattern to be edited: Maj (major), min (minor) or 7 (seventh).

Type

Allows you to select the pattern type to be edited: Bsc (Basic), or Adv (Advanced).

Division

This parameter is used to select the Division of the pattern: Or (Original) or Var (Variation).

Style (U1~U8)

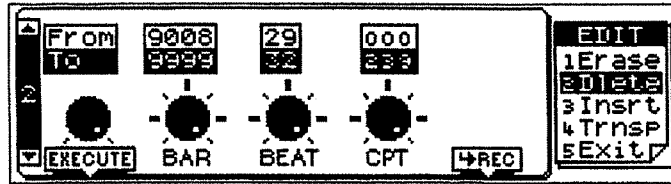
Use this parameter to select the Style that contains the pattern to be edited. The name of that Style (either the default setting, USERSTL X, or the name you or someone else programmed) is displayed in the second line.

Execute

Press [M.DRUMS] to edit the data right away. The following parameters allow you to narrow down the scope of the edit operation. If you wish to edit the entire pattern, there is no need to fine-tune your settings. Just confirm the command by pressing [M.DRUMS].

Edit\Dlete\2 page

- Master page: [F4] (UsrStl)→ [F4] (Edit)→ [F2] (Dlete)
[PAGE] ▲▼ (select page 2)



From/To

Use the [DRUMS/PART] knob to select the To or From level. From refers to the position where the edit operation is to begin. That position is specified in a Bar-Beat-CPT format. To designates the position where the edit operation is to end (Bar-Beat-CPT value). Always check whether you have selected the right level (From or To) before setting the following parameters.

Bar (1-9999)

This is where you specify the bar position. By default, the From and To values are set to the beginning and end of the selected track(s). Note that the To value always refers to the end of the longest track.

Beat (1-[number of beats per bar])

This is where you specify the beat position. The number of selectable beats obviously depends on the time signature of the selected pattern.

CPT

This is where you specify the CPT position of the beginning and end. Unless you do not need to edit all the selected data within the last bar, you should keep the default setting. Note that the Micro mode allows you to edit the data on an event basis, which is more precise because there you *see* the events to be edited, which is not the case here. If you only wish to edit one event (or message), you should definitely do so in the Microscope mode.

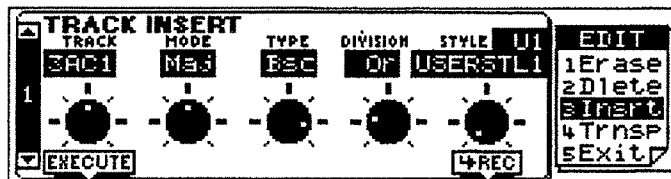
Execute

Press Part Select [M.DRUMS] to confirm your settings and edit the data.

Track Insert

Edit\Insrt\1 page

- Master page: [F4] (UsrStl) → [F4] (Edit) → [F3] (Insrt)
[PAGE] ▲▼ (select page 1)



The Insert function allows you to insert space in an existing pattern. That means that all data lying behind the position calculated by the For parameter (see the second page) are shifted further towards the end of the pattern, effectively making the pattern longer. You can only insert blank measures here.

Track (1ADR~8AC6, All)

Allows you to select the track you wish to edit. Don't forget to select the desired User Style memory if it isn't already selected (see below). You can also select All here, in which case the operation applies to all tracks of the selected pattern.

Mode

Allows you to select the mode of the pattern to be edited: Maj (major), min (minor) or 7 (seventh).

Type

Allows you to select the pattern type to be edited: Bsc (Basic), or Adv (Advanced).

Division

This parameter is used to select the Division of the pattern: Or (Original) or Var (Variation).

Style (U1~U8)

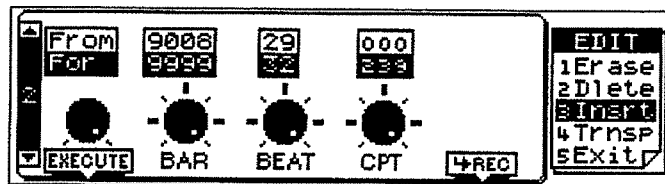
Use this parameter to select the Style that contains the pattern to be edited. The name of that Style (either the default setting, USERSTL X, or the name you or someone else programmed) is displayed in the second line.

Execute

Press [M.DRUMS] to edit the data right away. The following parameters allow you to narrow down the scope of the edit operation. If you wish to edit the entire pattern, there is no need to fine-tune your settings. Just confirm the command by pressing [M.DRUMS].

Edit\Insr\2 page

- Master page: [F4] (UsrStl)→ [F4] (Edit)→ [F3] (Insr)
[PAGE] ▲▼ (select page 2)



From/For

Use the [DRUMS/PART] knob to select either the From or the For level. The From level allows you to specify the position where the selected number of bars, beats, and clocks is to be inserted.

For, on the other hand, specifies *how many bars*, beats, and CPTs are to be inserted. In other words, this function does not follow the From/To rule of the other User Style Edit functions.

Track Insert works more or less like Length when it comes to making a pattern longer. There is one major difference, though: Track Insert allows you to make room at the beginning or in the middle of a pattern, while Length can only add blank measures, beats, and CPTs at the end of a pattern. (Apart from that, Length also allows you to shorten a pattern, of course.)

Note: The Microscope mode also features an Insert function that allows you to add events without shifting the subsequent events towards the end. If you need to make room for new data, Edit Track Insert, is thus the only option you have.

Bar (1~9999)

This is where you specify the bar position. By default, the From values are set to the beginning of the selected track(s).

Beat (1-[number of beats per bar])

This is where you specify the beat position. The number of selectable beats obviously depends on the time signature of the selected pattern.

CPT

This is where you specify the CPT value of the insert position (To) or the length of the insert (For). In most cases, you will probably work with entire bars because doing otherwise is highly confusing and probably not very musical.

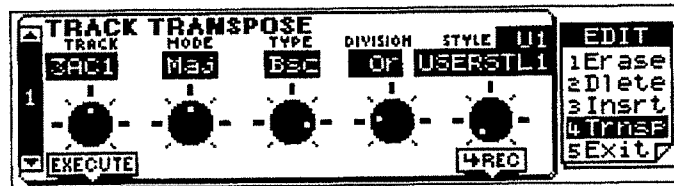
Execute

Press Part Select [M.DRUMS] to confirm your settings and insert the requested number of bars, beats and CPTs.

Track Transpose

Edit\Trnsp\1 page

- Master page: [F4] (UsrStl) → [F4] (Edit) → [F4] (Trnsp)
[PAGE] ▲▼ (select page 1)



Track Transpose is used to transpose the notes of the selected pattern (the other non-note data obviously cannot be transposed). Use this function with great caution because the Key value is not updated – even if you transpose entire track(s). We therefore suggest you only use it for parts of an Intro or Ending pattern – for example a difficult phrase you have recorded only once and then copied using Track Copy. In other words, never transpose an entire pattern as that will invariably lead to a lot of confusion in the Arranger mode.

Track (1ADR~8AC6, All)

Allows you to select the track you wish to edit. Don't forget to select the desired User Style memory if it isn't already selected (see below). You can also select All here, in which case the operation applies to all tracks of the selected pattern. When combined with From Note and To Note (see below), Track Transpose is also useful for the 1ADR track. It allows you to select another snare or kick sound, for example. Most Drum Sets provide two snares, one assigned to note number 38 (D2), and a second assigned to note number 40 (E2). By selecting From Note= 38 (D2), To Note= 38 (D2) and setting the transpose Value "+2", you can change your D2 snare to the E2 snare.

Mode

Allows you to select the mode of the pattern to be edited: Maj (major), min (minor) or 7 (seventh).

Type

Allows you to select the pattern type to be edited: Bsc (Basic), or Adv (Advanced).

Division

This parameter is used to select the Division of the pattern: Or (Original) or Var (Variation).

Style (U1~U8)

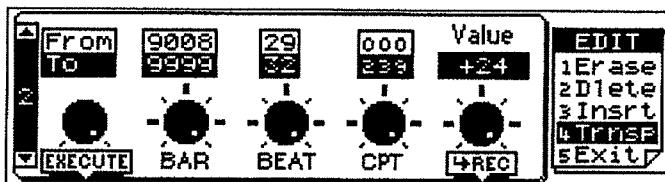
Use this parameter to select the Style that contains the pattern to be edited. The name of that Style (either the default setting, USERSTL X, or the name you or someone else programmed) is displayed in the second line. *

Execute

Press Part Select [M.DRUMS] to edit the data right away. Chances are, however, that you will not obtain the desired transposition. Just ignore Execute here and go on to the next display page.

Edit\Trnsp\2 page

- Master page: [F4] (UsrStl)→ [F4] (Edit)→ [F4] (Trnsp)
[PAGE] ▲▼ (select page 2)



From/To

Use the [DRUMS/PART] knob to select the To or From level. From refers to the position where the edit operation is to begin. That position is specified in a Bar-Beat-CPT format. To designates the position where the edit operation is to end (Bar-Beat-CPT value). Always check whether you have selected the right level (From or To) before setting the following parameters.

Bar (1~9999)

This is where you specify the bar position. By default, the From and To values are set to the beginning and end of the selected track(s). Note that the To value always refers to the end of the longest track.

Beat (1~[number of beats per bar])

This is where you specify the beat position. The number of selectable beats obviously depends on the time signature of the selected pattern.

CPT

This is where you specify the CPT position of the beginning and end. Unless you do not need to edit all the selected data within the last bar, you should keep the default setting. Note that the Micro mode allows you to edit the data on an event basis, which is more precise because there you *see* the events to be edited, which is not the case here. If you only wish to edit one event (or message), you should definitely do so in the Microscope mode.

Value (-24~+24)

This parameter is used to set the transposition interval in semi-tone steps. If you wish to transpose a C pattern to D, enter the Value +2.

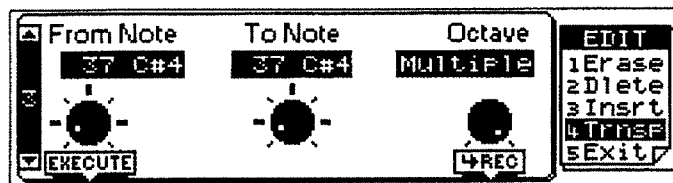
Note: Be careful when applying Track Transpose to the 1ADR part. After all, transposing all notes of this track would mean that the drum part changes dramatically.

Execute

Press Part Select [M.DRUMS] to confirm your settings and edit the data or go to the next page if you do not wish to transpose all notes.

Edit\Trnsp\3 page

- Master page: [F4] (UsrStl)→ [F4] (Edit)→ [F4] (Trnsp)
[PAGE] ▲▼ (select page 3)



From Note (C-1~G9)

This parameter allows you to set the lower limit of the note range to be modified within the specified From/To time range (see the second display page). If you only wish to edit one note, set the same value for From Note and To Note.

Note: If you select Octave= Multiple, you only need to set the correct From Note/To Note range without having to worry about the octave (you can set the C-1~G-1 range, for example to edit these notes in all octaves).

To Note (C-1~G9)

This parameter allows you to select the upper limit of the note range you wish to edit. Select the correct value if not all notes are to be edited.

Octave (Multiple, Single)

If the selected note range should be edited in all octaves, select Multiple. If the edit operation must only bear on the notes within the selected range, set this parameter to Single.

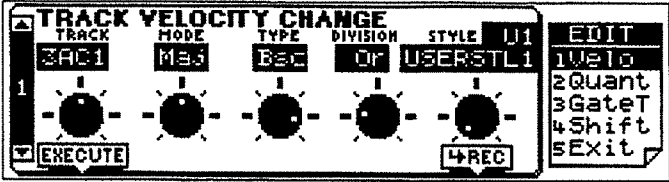
Execute

Press Part Select [M.DRUMS] to confirm your settings and edit the data.

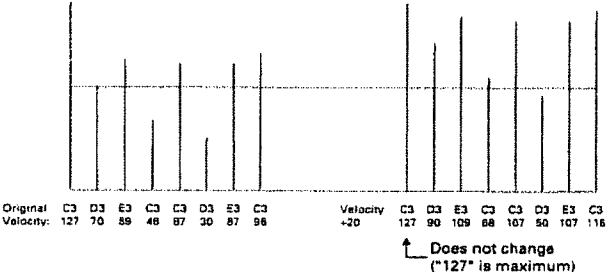
Track Velocity Change

Edit\Velo\1 page

- Master page: [F4] (UsrStl) → [F4] (Edit) → [SHIFT] + [F1] (Velo)
- [PAGE] ▲▼ (select page 1)



The Velocity Change function allows you to modify the dynamics (called velocity) of a track or excerpt. Increasing the velocity values means that the notes in question will be louder and brighter than before, while reducing the velocity values means the opposite. Use this function when you are happy with the timing of the notes but would like the sound to be brighter/louder or rounder/softer. Executing this function means that the velocity values will change proportionally:



Track (1ADR-8AC6, All)

Allows you to select the track you wish to edit. Don't forget to select the desired User Style memory if it isn't already selected (see below). You can also select All here, in which case the operation applies to all tracks of the selected pattern.

Mode

Allows you to select the mode of the pattern to be edited: Maj (major), min (minor) or 7 (seventh).

Type

Allows you to select the pattern type to be edited: Bsc (Basic), or Adv (Advanced).

Division

This parameter is used to select the Division of the pattern: Or (Original) or Var (Variation).

Style (U1-U8)

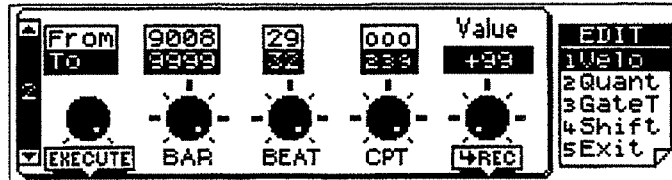
Use this parameter to select the Style that contains the pattern to be edited. The name of that Style (either the default setting, USERSTL X, or the name you or someone else programmed) is displayed in the second line.

Execute

Press Part Select [M.DRUMS] to edit the data right away.

Edit\Velo\2 page

- Master page: [F4] (UsrStl) → [F4] (Edit) → [SHIFT] + [F1] (Velo)
[PAGE] ▲▼ (select page 2)



From/To

Use the [DRUMS/PART] knob to select the To or From level. From refers to the position where the edit operation is to begin. That position is specified in a Bar-Beat-CPT format. To designates the position where the edit operation is to end (Bar-Beat-CPT value). Always check whether you have selected the right level (From or To) before setting the following parameters.

Bar (1~9999)

This is where you specify the bar position. By default, the From and To values are set to the beginning and end of the selected track(s). Note that the To value always refers to the end of the longest track.

Beat (1~[number of beats per bar])

This is where you specify the beat position. The number of selectable beats obviously depends on the time signature of the selected pattern.

CPT

This is where you specify the CPT position of the beginning and end. Unless you do not need to edit all the selected data within the last bar, you should keep the default setting. Note that the Micro mode allows you to edit the data on an event basis, which is more precise because there you *see* the events to be edited, which is not the case here. If you only wish to edit one event (or message), you should definitely do so in the Microscope mode.

Value (-99~+99)

The Value parameter allows you to set the velocity change level. Select a positive value to increase the velocity of the selected track(s), or a negative value to decrease the velocity values.

This Value parameter can be particularly useful for velocity switched sounds (most organ Tones, for example): slightly reducing or increasing the overall velocity, allows you to "shift" all notes to the "other" sound.

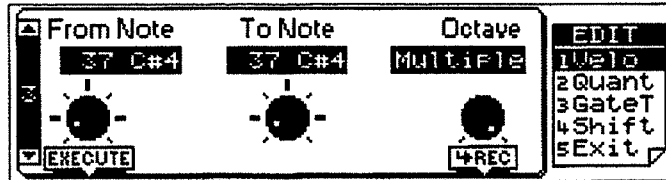
Note: Even the highest positive or negative Value doesn't allow you to go beyond "1" or "127". There is a reason why "0" is impossible: that value is used to indicate the end of a note (note-off). "127", on the other hand, is the highest velocity value the MIDI standard can muster. Selecting a high positive velocity value may thus lead to all notes being played at "127", which may be what you had in mind in the first place...

Execute

Press Part Select [M.DRUMS] to confirm your settings and edit the data or go to the next page if you do not wish to change all notes.

Edit\Velo\3 page

- Master page: [F4] (UsrStl)→ [F4] (Edit)→ [SHIFT] + [F1] (Velo)
[PAGE] ▲▼ (select page 3)



From Note (C-1~G9)

This parameter allows you to set the lower limit of the note range to be modified within the specified From/To time range (see the second display page). If you only wish to edit one note, set the same value for From Note and To Note.

Note: If you select Octave= Multiple, you only need to set the correct From Note/To Note range without having to worry about the octave (you can set the C-1~G-1 range, for example to edit these notes in all octaves).

Note: The above settings (37 C#4) are only examples. The correct note name for note number 37 is, of course, C#2.

To Note (C-1~G9)

This parameter allows you to select the upper limit of the note range you wish to edit. Select the correct value if not all notes are to be edited. See also the two notes under "From Note (C-1~G9)".

Octave (Multiple, Single)

If the selected note range should be edited in all octaves, select Multiple. If the edit operation must only bear on the notes within the selected range, set this parameter to Single.

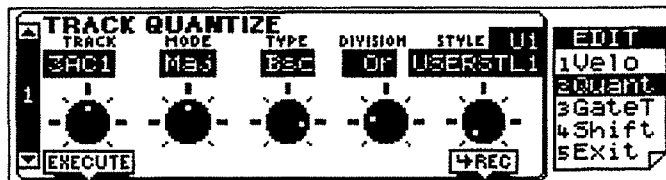
Execute

Press Part Select [M.DRUMS] to confirm your settings and edit the data.

Track Quantize

Edit\Quant\1 page

- Master page: [F4] (UsrStl)→ [F4] (Edit)→ [SHIFT] + [F2] (Quant)
[PAGE] ▲▼ (select page 1)



The Track Quantize function can be used *after* recording a part if you don't feel comfortable with the timing of what you played. If only certain notes in a given time range need to be quantized, you should narrow down the edit range using the From/To

parameters on the second page. As stated in the *Player's Guide*, you should use quantization as sparingly as possible to program "natural" Styles.

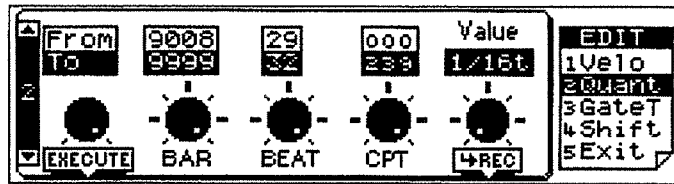
Using this function after recording a part has the advantage that you don't ruin the musicality of what you played. If, however, you prefer to quantize your parts while recording, use (Quantize) Value to select the resolution of the "automatic" quantization function.

Track, Mode, Type, Division, Style, Execute

See page 67 for an explanation of these parameters.

Edit\Quant\2 page

- Master page: [F4] (UsrStl) → [F4] (Edit) → [SHIFT] + [F2] (Quant)
[PAGE] ▲▼ (select page 2)









From, To, Bar, Beat, CPT, Execute

See page 68 for an explanation of these parameters.

Value

This parameter sets the resolution of the Quantize function. The available values are:

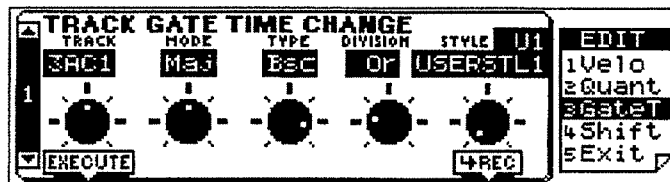
1/8	Eighth note (quaver)		1/32	Thirty-second note	
1/8t	Eighth note triplet (1/12)		1/32t	Thirty-second note triplet (1/48)	
1/16	Sixteenth note (semiquaver)		1/64	Sixty-fourth note	
1/16t	Sixteenth note triplet (1/24)				

Note: Be sure to always select the value that equals the shortest note you recorded. Otherwise, your part no longer sounds the way you played it.

Track Gate Time Change

Edit\GateT\1 page

- Master page: [F4] (UsrStl) → [F4] (Edit) → [SHIFT] + [F3] (GateT)
[PAGE] ▲▼ (select page 1)



The Gate Time Change function allows you to modify the duration of the notes in the selected time (From/To) range. We recommend you use this function exclusively to shorten notes that are being perceived as too long due to the Tone you assigned to the track in question. On these two pages, there is indeed no way to view the duration of the notes, which makes editing the data "en bloc" a little bit hazardous. Use the "Change" function to modify the duration of specific notes.

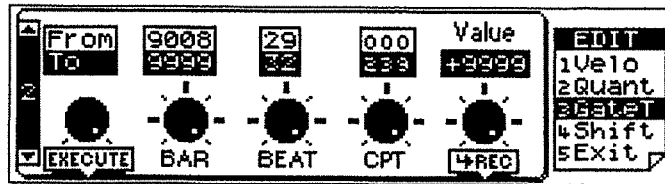
After selecting a Tone with a slow release (i.e. a sound that lingers on after all notes have been released), however, Track Gate Time Shift will help you cutting the notes down to size and thus avoid overlaps (and possible dissonance, also known as cacophony). Even though your release timing may have been right for the original Tone, you should use Track Gate Time Shift to shorten all notes to such a degree that they no longer overlap.

Track, Mode, Type, Division, Style, Execute

See page 67 for an explanation of these parameters.

Edit\GateT\2 page

- Master page: [F4] (UsrStl) → [F4] (Edit) → [SHIFT] + [F3] (GateT)
[PAGE] ▲▼ (select page 2)



From, To, Bar, Beat, CPT, Execute

See page 68 for an explanation of these parameters.

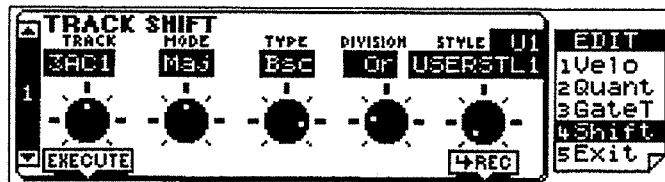
Value (-9999~+9999)

This parameter sets the amount by which the duration (or gate time) of the selected notes is to be changed. The shortest possible Gate Time value is "1" (used for all notes of the 1ADR track), so that selecting "-1000" for notes with a Gate Time of "1" in the specified time range still leaves you with the same value. Allowing the value "0" would effectively erase the notes, which can only be achieved with Track Erase. In other words, you cannot use Track Change Gate Time to erase notes.

Track Shift

Edit\Shift\1 page

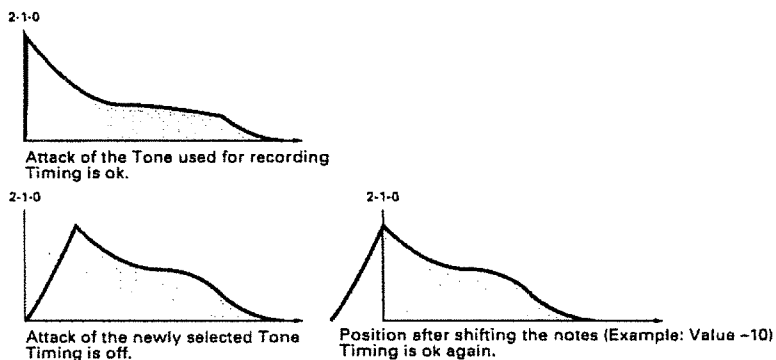
- Master page: [F4] (UsrStl) → [F4] (Edit) → [SHIFT] + [F4] (Shift)
[PAGE] ▲▼ (select page 1)



Track Shift allows you to shift the the notes within the selected From/To range (second page). It can be used for two things:

- (1) To correct "slow" notes due to a slow(er) attack.

You may want to use Track Shift after assigning a Tone to a track that has a considerably slower attack than the Tone you used for recording the part in question. This technique is frequently used in pop music to "time" 1/16-note string arpeggios played with a "slow" pad sound. Rather than have the notes begin at the mathematically correct time (e.g. 2-1-0), you could shift them to the left (e.g. to 1-4-110) of the previous measure, so that the peak volume of the attack is reached on the next downbeat:



(2) To correct the timing of notes recorded via MIDI without quantizing them.

As explained in the *Player's Guide*, you could use sequences, etc. as raw material for your User Styles. Recording such excerpts via MIDI may cause a slight delay (e.g. 5 CPT). If that is not acceptable, use Track Shift to "push" all notes to the left (select "-5"). That allows you to tidy up the timing and still keep any irregularities (music!) the original may contain because it was not quantized.

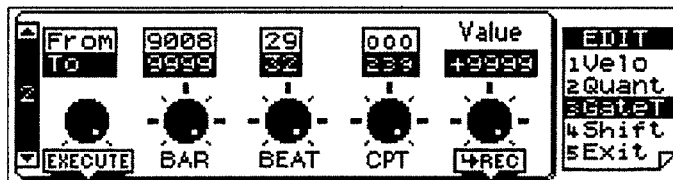
Note: Before selecting a Shift value, you should have a look at one track in the Microscope mode to determine which negative value to use. If the first note of a track starts on 1-1-6, for example, set Track Shift to "-6". Be sure to apply the same Shift to all tracks to maintain the timing of the original!

Track, Mode, Type, Division, Style, Execute

See page 67 for an explanation of these parameters.

Edit\Shift\2 page

- Master page: [F4] (UsrStl) → [F4] (Edit) → [SHIFT] + [F4] (Shift) [PAGE] ▲▼ (select page 2)



From, To, Bar, Beat, CPT, Execute

See page 68 for an explanation of these parameters.

Value (-9999~+9999)

This parameter sets the amount by which the notes are shifted. The Value refers to CPT units (one CPT= 1/120 ♩).

Note: Notes on the first beat of the first bar cannot be shifted further to the left (that would mean shifting them to the "0" measure, which doesn't exist).

9 User Style Microscope mode

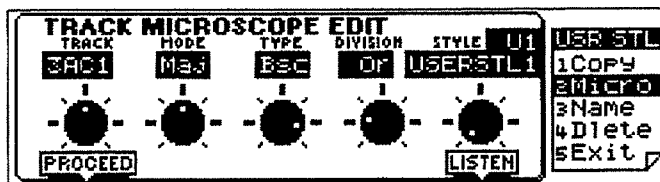
The User Style Microscope mode is similar to the Microscope mode found on Roland MC series sequencers. Select this mode whenever you need to change just one aspect of an otherwise perfect User Style (or copied ROM Style).

In this chapter, we will use the word *event* for any kind of message (identical to MIDI messages that cause the Arranger to play or set something). An event is thus a command (or instruction) for the Arranger.

As the name of the first display page (Track Microscope Edit) implies, you can only view and edit one track at a time. In other words, do not forget to select the right track and pattern before you select a Micro function.

Track Microscope Edit

- Master page: [F4] (UsrStl) → [SHIFT] + [F2] (Micro)



This page again contains the familiar selection criteria that help you choose the track and pattern. As stated above, you first need to choose a pattern before you can edit it. There is no way to view all data of a given pattern in Microscope mode. This is also the page you will return to after leaving the selected Micro Edit function.

Track, Mode, Type, Division, Style

See page 67 for an explanation of these parameters.

Proceed

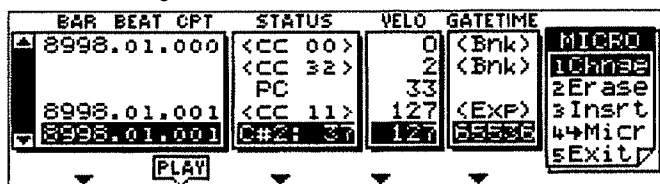
Press [M.DRUMS] to jump to the Microscope Edit page.

Listen

The Listen function allows you to audition the track of the selected pattern.

Change

- Master page: [F4] (UsrStl) → [SHIFT] + [F2] (Micro)
[M.DRUMS] (Proceed) → [F1] (Chnge)



The Microscope Change function is used to modify existing events, which may be anything from transforming a C#2 into a D2, velocity value "35" into "70", or control change CC1 into control change CC10.

Event selection: Bar-Beat-CPT

Allows you to scroll through the events. You can only select Bar-Beat-CPT positions that already contain data. Note that using the [PAGE] ▲▼ buttons also allows you to scroll through the events. It has the advantage of being more precise because it works on a step-by-step basis – and that every note event is sounded.

Status column

This column contains all the message types you can assign to an event:

Status	Meaning	Status	Meaning
CC1	Modulation data	PC	Program changes (usually found at the beginning of a pattern).
CC6	Data entry (required for NRPN messages).	PB	Pitch Bend message
CC10	Pan message	CC91	Effect Send 1 (Reverb)
CC11	Expression message (volume)	CC93	Effect Send 3 (Chorus)
CC0	Bank select (MSB)	CC98/99	NRPN
CC32	Bank select (to select the Old or New level).		

Note: Don't look for CC64 (Hold or Sustain) events because you won't find any. As explained in the Player's Guide, the use of the pedal connected to the SUSTAIN FOOTSWITCH jack is converted into the equivalent Gate Time values. To change such converted "Hold messages", you thus have to modify the Gate Time values of the affected notes.

Velo

Don't let the name of this column fool you. It does indeed display the velocity value of notes, but it also contains the values assigned to a control change number, a program change, or pitch bend event.

Use the [LOWER/NUMBER] knob to change the value of the selected event.

Gate Time

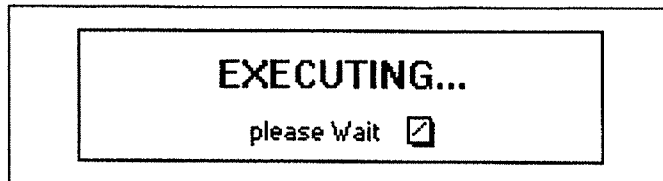
The values in this column, on the other hand always represent the duration (or Gate Time) of note events. That is why all other events have no Gate Time values (consider the PC-33 event in the above illustration, for example).

Note: The Gate Time value of drum note events is always "1". The sounds being triggered are indeed one-shot samples that stop automatically. Setting a longer Gate Time value for drum notes (IADR track) does not make them longer.

[PLAY] ([M.BASS])

The Play function allows you to sound the selected event (if it is a note). You could use this function to check the new velocity (Velo) value, and change it again if necessary until the note sounds right.

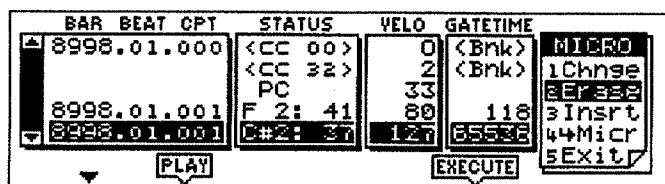
You can now select another function on the menu (Erase or Insert) or press [F4] to return to the opening Microscope page in order to select another track or pattern for editing or further exit to the Master page. As soon as you do, the display will tell you that the new settings are being processed:



In other words, there is no need to confirm your settings: all modifications will take effect as soon as you return to the opening Microscope page. (That also means, however, that settings you do not really wish to keep will be processed, so be careful with what you do in the Microscope mode.)

Erase

- ↳ Master page: [F4] (UsrStl) → [SHIFT] + [F2] (Micro)
[M.DRUMS] (Proceed) → [F2] (Erase)



The Erase function allows you to dispose of unwanted events. Erasing an event on this page mode does not mean that all subsequent events will be shifted to the left to fill up the "gap". As a matter of fact, "spaces" between events are not considered as gaps by the Microscope function.

Event selection: Bar-Beat-CPT [DRUMS/PART]

Use this function to choose the event you wish to delete.

[PLAY] (Part Select [M.BASS])

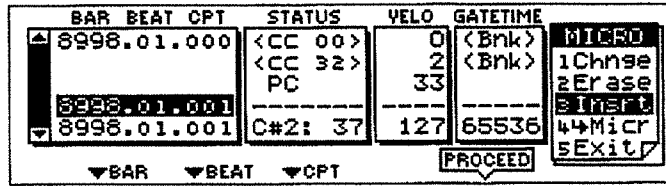
The Play function allows you to sound the selected event (if it is a note). You could use this function to check the new velocity (Velo) value, and change it again if necessary until the note sounds right.

Execute ([UPPER1])

The Erase command needs to be confirmed. If you are sure you selected the right event, press this button now to get rid of it.

Insert

- Master page: [F4] (UsrStl) → [SHIFT] + [F2] (Micro)
[M.DRUMS] (Proceed) → [F3] (Insrt)



This Insert function is used to add events to an existing track – or to program a part in step time. See the *Player's Guide* for an example of step time programming using the Microscope Insert function.

The Insert function consists of two pages: the first page is used to add an event at the selected position (using Bar, Beat and CPT), while the second page allows you to define the Status (note, control change, etc.) and values of that event.

Note: It is perfectly possible to insert an event at a position that already contains one. This allows you to add the missing note of a chord, for example. Be sure, however, not to assign two control changes of the same number (e.g. Pan, CC10) and with different values to the same position.

Bar (1-9999) [DRUMS/PART]

Allows you to specify the bar where the event should be inserted.

Beat (1-[number of beats per bar]) [ACCOMP/GROUP]

Allows you to specify the beat within the selected bar (see above).

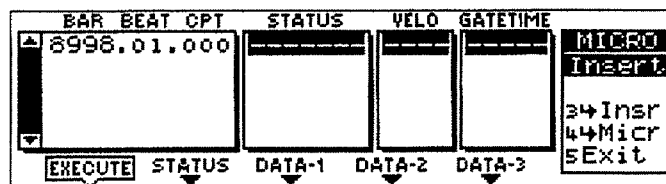
CPT [BANK]

This parameter sets the CPT value of the new event. Here is a table of the most commonly used notes and their CPT values:

Note	CPT	Note	CPT
o	480	♪ ₃	90
♪	240	♪	60
♪	120	♪	30

Proceed ([UPPER1])

After specifying the position of the new event, press [UPPER1] to select the second Insert page, where you can assign a function (Status) and value(s) to the new event:



Look at the above display illustration: this time, the Status, Value and Gate Time dashes are inverted (while on the previous page, only the position is inverted) to signal that the RA-800 is now waiting for instructions regarding the newly inserted event.

Status [ACCOMP/GROUP]

Use the [ACCOMP/GROUP] knob to select the Status of the new event (note, control change, etc.). To insert a note event, you can also press the corresponding key on the external controller. That will also assign a velocity value to that event. If the velocity value is not the one you need, either press the same key again (pressing it harder or softer) or use the [BASS/BANK] knob to set it.

Note: You can only program one note at a time. Playing a chord will only enter the last note you played.

Data-1 [BASS/BANK]

This knob can only be used to set the "note name: note number" (e.g. C#2 : 37) of *note events*. If you select another event using the Status knob (see above), the [BASS/BANK] knob cannot be used.

Velo (Data-2) [LOWER/NUMBER]

As stated above, the Velo value does not necessarily refer to a velocity value. It is also used to indicate and (on this page) set the value assigned to the control change, etc. in question – which is why the function of the [LOWER/NUMBER] knob is called Data-2 rather than Velo.

Gate Time (Data-3) [UPPER/VARIATION]

The Gate Time value can only be set for note events. Use it to specify the duration of the new note. Remember that Gate Time value "1" is enough for 1ADR note events.

Note: Press [F3] to jump back to the first insert page if you need to change something.

Execute

Press [M.DRUMS] to confirm your settings and assign them to the event.

Move

- Master page: [F4] (UsrStl) → [SHIFT] + [F2] (Micro)
- [M.DRUMS] (Proceed) → [SHIFT] + [F1] (Move)

BAR	BEAT	CPT	STATUS	VELO	GATETIME	
8998	01	000	<CC 00>	0	<Bnk>	MICRO
			<CC 32>	2	<Bnk>	1MOVE
			PC	33		2COPY
			PB	-127		3-----
8998	01	001	C#2: 37	127	55536	4+Micr
						5Exit
	FROM	TO			PROCEED	

The Move function allows you move the selected event (or events) to another position. This is the same as using the Track Shift function but it applies only to one or a few events at a time.

From [DRUMS/PART]

Use the [DRUMS/PART] knob to select first event to be moved. If you only wish to move one event, press [PROCEED]. Otherwise, set the last event to be moved:

To [ACCOMP/GROUP]

Allows you to select the last event to be moved. While rotating the [ACCOMP/GROUP] knob, you will notice that all events you scroll through are inverted. Stop at the last event you wish to move.

Proceed ([UPPER1])

Now that the range of events to be moved is selected, press [UPPER1] to go to the second Move page:

BAR	BEAT	CPT	STATUS	VELO	GATETIME	MICRO
8998.01.000	<CC 00>	0	<Bnk>	0	<Bnk>	MICRO
8998.01.001	<CC 32>	2	<Bnk>	2	<Bnk>	1Move
8998.01.002	PC	33		33		Mix
8998.01.003	PB	-127		-127		3+MOVE
						4+Micr
						5Exit

INTO
▼BAR ▼BEAT ▼CPT EXECUTE

The parameters on this page are used to specify the new position (Into) of the first event you selected on the previous display page. All subsequent events will be positioned relative to the first event (i.e. the distance between the moved events remains the same).

Bar, Beat, CPT ([DRUMS/PART], [ACCOMP/GROUP], [BASS/BANK])

Use these controls to set the position the selected event(s) is (are) to be moved to. Just for your information, the Move function is automatically set to Mix, which means that the act of moving events does not overwrite events that may be present at the selected destination.

Execute ([UPPER1])

Press [UPPER1] to confirm your settings and move the selected events to the new position. You could now press [F3] to jump to the Copy function, or [F4] to return to the opening Microscope page.

Copy

- Master page: [F4] (UsrStl) → [SHIFT] + [F2] (Micro)
[M.DRUMS] (Proceed) → [SHIFT] + [F2] (Copy)

BAR	BEAT	CPT	STATUS	VELO	GATETIME	MICRO
8998.01.000	<CC 00>	0	<Bnk>	0	<Bnk>	MICRO
8998.01.001	<CC 32>	2	<Bnk>	2	<Bnk>	1Move
8998.01.002	PC	33		33		2COPY
8998.01.003	PB	-127		-127		3-----
						4+Micr
						5Exit

FROM TO PROCEED

The Copy function allows you to copy the selected events to another position. In a way, it is like moving events without erasing the events at their original position.

From, To

After selecting the events to be copied, press [UPPER1] (Proceed) to jump to the second Copy page:

BAR	BEAT	CPT	STATUS	VELO	GATETIME	MICRO
8998.01.000	<CC 00>	0	<Bnk>	0	<Bnk>	MICRO
8998.01.001	<CC 32>	2	<Bnk>	2	<Bnk>	COPY
8998.01.002	PC	33		33		Mix
8998.01.003	PB	-127		-127		3+COPY
						4+Micr
						5Exit

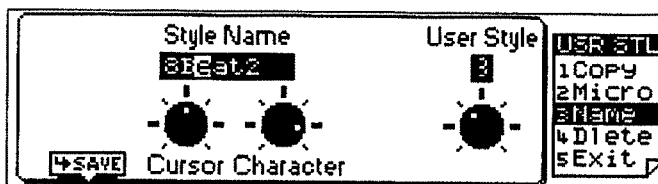
INTO
▼BAR ▼BEAT ▼CPT EXECUTE

By now, you probably know that the Into position is the Bar/Beat/CPT the first event of the selected range will be copied to. Set the desired position using the [DRUMS/PART], [ACCOMP/GROUP], and [BASS/BANK] knobs.

Also note the *Copy Mix* message on the function menu. Like on the second Move page, this message is used to signal that copying the selected events will not erase events that may already exist at the selected position.

Style Name

- Master page: [F4] (UsrStl) → [F3] (Name)

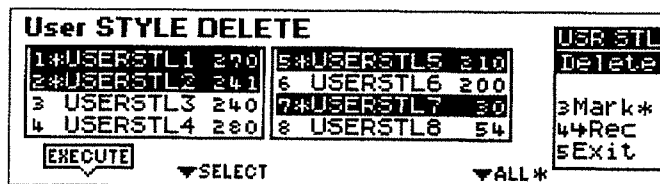


After editing a User Style, you may want to name it. That is what the Style name page allows you to do. First select the User Style memory that contains the Style whose name you wish to change (or program). As always, select the cursor position using the [ACCOMP/GROUP] knob and enter the desired character with the [BASS/BANK] knob. After entering the name, do take advantage of the Save jump function to save your User Style to disk. Saving your Style is the only safeguard against losing a precious accompaniment. Remember that all User Styles are erased when you power off your RA-800.

Pressing [M.DRUMS] will take you right to the Save Disk page that allows you to save User Styles. In other words, you won't have to "press" your way to the desired Disk menu page.

User Style Delete

- Master page: [F4] (UsrStl) → [F4] (Delete)



Contrary to "Track Delete", the User Style Delete function is used to clear the selected User Style memory (or memories). As pointed out in the *Player's Guide*, it would be wiser to forget that this function even exists because, on the one hand, all User Styles are erased anyway when you power off your RA-800, and, on the other hand, whenever you load (or copy) another Style to a User Style memory, the previous Style is erased without warning. But if you are sure you no longer need a given Style, delete it using this function.

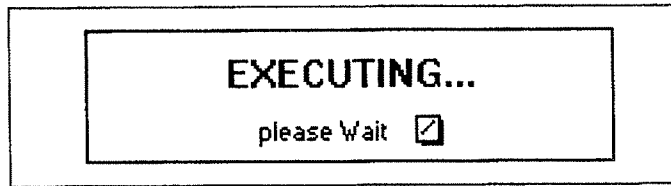
Select, All, Mark

Use the [ACCOMP/GROUP] knob to place the cursor on the User Style you wish to delete, or the [UPPER/VARIATION] knob to select the first four Styles (1-4), the next four (5-8), or all Styles.

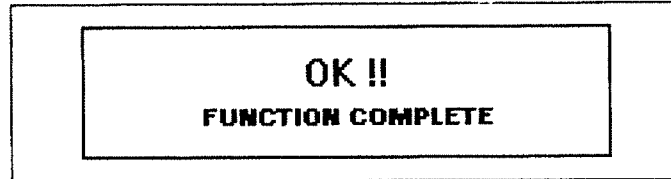
You can also select Styles 1, 5, and 8, for example, to be deleted. To do so, select them and press [F3] (Mark) to mark them (*).

After selecting the Styles to be deleted, press [M.DRUMS] (Execute) to delete the Style(s).

The display will respond with:



The Styles will be deleted, after which the display tells you:



The display now returns to the first User Style\Rec page.

10 MIDI mode

SMF, General MIDI, and General Standard

Before exploring the MIDI parameters of your RA-800, there is something you need to know. Your RA-800 is GM (General MIDI) and GS (General Standard) compatible, the most important advantage being that it allows you to playback (and record) Standard MIDI Files using the Recorder that can be played back on any GM or GS compatible instrument (like your RA-800). You may think that is nothing special, but before the advent of GS (and GM), there was no way of predicting what a sequence would sound like when played back on another module or synthesizer because memory 1 on instrument A contained a synth pad sound, while the same memory on instrument B contained a grand piano sound.

Standard MIDI Files

In fact, there used to be a time when you could not even load your sequences into a sequencer of another brand because there were as many formats (i.e. ways of data-encoding) as there were sequencer manufacturers. That is why several manufacturers decided to develop a format that could be read by all sequencers. Think of the Standard MIDI File format as the TXT format of popular personal computers: the level that all programs can understand.

Contrary to TXT format, however, the Standard MIDI File (SMF for short) format is amazingly elaborate: even System exclusive (SysEx) messages, the most intricate kind of MIDI data, travel well, so that the "format" (comparable to the lay-out of printed text) remains intact when a sequence is converted to SMF.

In fact, the SMF format is so elaborate that some sequencers no longer rely on their manufacturers' system for recording and playing back data – which is the case of the RA-800's Recorder.

The Standard MIDI File format (i.e. the fact that any sequencer can read the data) is a prerequisite for the following two formats (i.e. the fact that sound selection, amongst other things, remains the same).

GM System

The GM (General MIDI) system is a set of recommendations which seek to provide a way to go beyond the limitations of proprietary designs, and standardize the MIDI capabilities of sound generating devices. Sound generating devices and sound data that meet the GM standard bear the GM logo. Song data bearing the GM logo can be played back using any GM sound generating unit to produce essentially the same musical performance.

GS format

The GS format is Roland's unified set of specifications to standardize the MIDI capabilities of sound generating devices. Song data bearing the GS logo can be played back using any GS sound generating unit. The RA-800 supports both GM and GS, and can be used to playback song data carrying either of these logos.

Note: See "Compatibility" in the Player's Guide for aspects to consider in order to keep your RA-800 Recorder songs GM/GS compatible.

MIDI messages used by the RA-800

The way a device responds when it receives MIDI messages (i.e. how it produces sound, etc.) depends on the specifications of that device. This means that if the receiving device is not able to perform the function specified by the incoming message, the musical result will not be what you expected. What it comes down to is this: there are several levels of MIDI compatibility, and not all MIDI compatible instruments understand (i.e. receive) all existing MIDI messages.

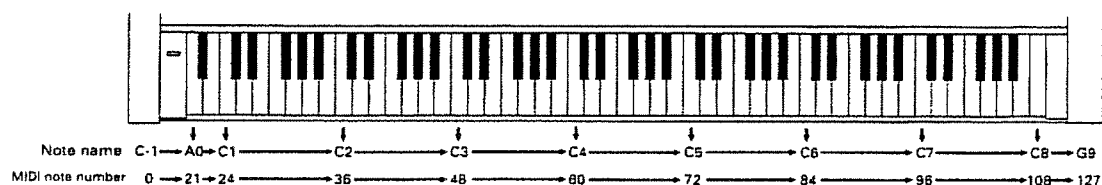
*Note: MIDI messages for which reception capability is required by the GM system (level 1) are marked by a * sign.*

Note messages *

These messages convey notes played on the keyboard. They include the following information:

Note number	A number describing the note corresponding to the key you pressed or released.
Note-on	A message signalling that you pressed a key (i.e. "start playing now").
Note-off	A message signalling that a key was released.
Velocity	A value describing how strongly you pressed a key.

Note: On many instruments (such as your RA-800), a note-on message with the velocity value "0" is used to signal the end of a note (i.e. velocity value "0" effectively functions as note-off message).



Pitch bend *

This message conveys the position of the Bender lever (or pitch bend wheel). The pitch will change when this message is received.

Bank Select (Control Change numbers 0 and 32)

Program Change *

On the RA-800, these messages will select Tones, Styles, and Performance Memories. By using Bank Select messages (which are a type of control change message), an even wider variety of memory locations can be selected. Control change messages were added when it became clear that the maximum number of sounds selectable using program change messages (128) was no longer sufficient to access all sounds of a given instrument.

Note: Do not forget to send a Program Change message after a Bank Select message because sending only Bank Select messages does nothing whatsoever. The right order for sending these messages is (pay attention to the CPT values):

1.1.0 Bank Select CC0 + value

1.1.1 Bank Select CC32 + value (0, 1, or 2)

1.1.2 Program Change

Note: On the RA-800, CC32 messages are used to select the Tone mode: "0" (don't leave current Tone mode), "1" (Old, e.g. SC-55 mode, Groups C and D), and "2" (New, e.g. RA-800 Tone mode, Groups A and B).

Control change messages

These messages control parameters such as modulation and pan. The function of a message is determined by its control change (e.g. ID) number.

Modulation (control change number 1) *

This message controls vibrato.

Volume (control change number 7) *

This message controls the volume of a part. When this message is received, the volume of the part receiving on that MIDI channel will change.

Expression (control change number 11) *

This message conveys volume changes. It can be used to add expression. The volume of a Part will be affected both by Volume messages (control change 7) and Expression messages (control change 11). If a value of "0" is received for either of these messages, the part volume will be 0 and will not rise even if the other message is sent with a higher value. Keep this in mind.

Pan(pot) (control change number 10) *

This message controls the stereo position of a part.

Hold (1) (control change number 64) *

This message conveys the up/down movements of the Damper (Sustain, Hold) pedal, causing the currently sounding notes to be sustained. When a Hold On message is received, notes will be sustained. In the case of decay-type instruments such as a piano, the sound will decay gradually until a Hold Off message is received. In the case of sustain-type instruments such as an organ, the sound will continue sustaining until a Hold Off message is received.

Sostenuto (control change number 66)

The Sostenuto pedal on a piano sustains only the notes which were already sounding at the moment the pedal was pressed. The Sostenuto message conveys the movement of this pedal. When Sostenuto On is received, only the notes which were already on at that moment will be sustained.

Note: This function can be assigned to the optional footswitch.

Soft (control change number 67)

The Soft pedal on a piano softens the tone during the time the pedal is pressed. The Soft message conveys the movement of this pedal. When Soft On is received, the cutoff frequency will be lowered, causing a softer sound. When Soft Off is received, the previous sound will return.

Note: This function can be assigned to the optional footswitch.

Reverb Send Level (control change number 91)

This message adds a reverb effect to the part.

Chorus Send Level (control change number 93)

This message adds a chorus effect to the part.

Delay Send Level (control change number 94)

This message adds a delay effect to the part. Delay is not available for the Drums (ADR and MDR) parts.

Portamento (control change number 65)

Portamento Time (control change number 5)

Portamento Control (control change number 84)

Portamento is an effect that creates a smooth change in pitch between the previously played note and the new played note. When a Portamento message is received, the Portamento effect will be turned on or off. Portamento Time controls the speed of the pitch change. Portamento Control specifies the source note number (the previously played note).

RPN LSB, MSB (control change number 100/101) *

Data Entry (control change number 6/38) *

Since the function of RPN (Registered Parameter Number) messages is defined in the MIDI specification, this message can be used between devices of different types. The RPN MSB and LSB messages specify the parameter which is to be modified, and then Data Entry messages can be used to modify the value of that parameter. RPN can be used to adjust Pitch Bend Sensitivity, Master Coarse Tune, and Master Fine Tune.

Note: The values modified using RPN messages will not be initialized even if program change messages etc. are received to select other sounds.

NRPN LSB, MSB (control change number 98/99)

Data Entry (control change number 6/38)

NRPN (Non-registered Parameter Number) messages can be used to modify the values of sound parameters unique to a particular device. The NRPN MSB and LSB messages specify the parameter which is to be modified, and then Data Entry messages can be used to modify the value of that parameter.

Since the GS format defines the function of several NRPN messages, GS compatible application programs can use NRPN messages to modify sound data parameters for Vibrato, Cutoff Frequency, Resonance, and Envelope values.

Note: The values modified using NRPN messages will not be initialized even if program change messages etc. are received to select other sounds.

Note: With the factory settings, the RA-800 will ignore NRPN messages. After a GS Reset message is received (or when you press the [GM/GS MODE] button), NRPN messages will be received. You can also manually turn on Rx NRPN (NRPN Receive Switch), so that NRPN messages will be received.

Aftertouch (Channel Pressure only *)

Aftertouch is a message that conveys the pressure applied to the keyboard after playing a note, so that this information can be used to control various aspects of the sound. There are two types of Aftertouch message: Polyphonic Key Pressure which is transmitted separately for each note, and Channel Key Pressure which is transmitted as one value that affects all notes on the specified MIDI channel.

All Sound Off

This message turns off all currently-sounding notes.

All Note Off message *

This message causes a note-off message to be sent to each note of the specified channel that is currently on. However, if Hold 1 or Sostenuto are on, the sound will continue until these are turned off.

Reset All Controllers *

This message returns controller values (modulation, pitch bend, etc.) to their initial settings. The following controller values for the specified channel will be reset to their initial values.

Controller	Initial value
Pitch Bend	0 (center)
Polyphonic Key Pressure (Aftertouch)	0 (minimum)
Channel Pressure (Aftertouch)	0 (minimum)
Modulation	0 (minimum)
Expression	127 (maximum)
Hold	0 (off)
Portamento	0 (off)
Soft	0 (off)
Sostenuto	0 (off)
RPN	number unset
NRPN	number unset

Note: Parameter values that were modified using RPN or NRPN will not change even when a Reset All Controller message is received.

Active Sensing

This message is used to check for broken MIDI connections, such as MIDI cables that have been disconnected, or MIDI cables that have been broken. The RA-800 transmits Active Sensing messages from both MIDI OUTs at set intervals. Once an Active Sensing message is received via a MIDI INput, Active Sensing monitoring will begin, and if an Active Sensing message fails to arrive for more than 420ms, it is assumed that the cable has been disconnected. If this happens, all currently sounding notes will be turned off, the same procedure will be executed as if a Reset All Controller message was received, and Active Sensing monitoring will stop.

System Exclusive messages

Exclusive messages are used to control functions which are unique to specific devices. Although Universal System Exclusive messages can be used even between devices of different manufacturers, most exclusive messages only apply to one type of instrument. In order to recognize the device for which the data is intended, Roland exclusive messages contain a manufacturer ID, device ID and model ID.

Note: The RA-800 also receives and transmits SysEx data with ID number 41H for Lyrics data.

GM System On * (Universal System Exclusive)

When a GM System On message is received, the RA-800 will be set to the basic GM settings. Also, NRPN and Bank Select messages will no longer be received once GM System On is received. The beginning of song data bearing the GM logo contains a GM System On message. This means that if you playback the data from the beginning, the sound generator will be automatically initialized to the basic settings.

GS Reset (GS Format System Exclusive)

When GS Reset is received, the RA-800 will be set to the basic GS settings. The beginning of song data bearing the GS logo contains a GS System Reset message. This means that if you play back the data from the beginning, the sound generator device will be automatically initialized to the basic settings.

Master Volume (Universal System Exclusive)

This is an exclusive message common to all newer MIDI devices that controls the master volume of the entire RA-800.

Other System exclusive (SysEx) messages

The RA-800 can receive GS format exclusive messages (model ID 42H) that are common to all GS sound generators. The RA-800 can also use exclusive messages (model ID 45H) that are especially for the SC-88.

About MIDI implementation charts

MIDI allows many different types of instruments to be connected, but in some cases there will be types of message which cannot be conveyed meaningfully. For example if you wish to use keyboard Aftertouch of an external instrument to control the sound, while the sound generator connected to the keyboard does not receive Aftertouch messages, you will not get the musical result you intend. In this way, only messages that are used by both devices will actually be conveyed.

The MIDI specification requires that the owner's manual for each MIDI device include a "MIDI Implementation Chart" that shows the types of MIDI messages which are actually transmitted and received by a device. Put the Transmitted column of the transmitting device's implementation chart side by side with the Received column of the receiving device's implementation chart. Messages which are marked as "0" in both charts can be conveyed successfully. If either chart shows a "X" for a certain type of message, that message cannot be conveyed.

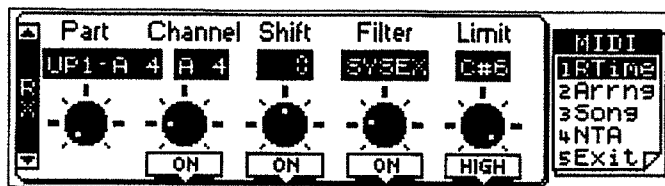
MIDI on your RA-800

Your RA-800 features an impressive number of MIDI parameters, some of which are used to set the MIDI receive (RX) or MIDI transmit (TX) channels, while most of them are related to enabling or disabling reception or transmission of certain MIDI messages. As stated in the *Player's Guide*, do not change the MIDI parameter settings unless you know what you are doing, in order to maintain the highest possible degree of compatibility with other MIDI devices.

After setting your MIDI parameters, you may wish to save them to a MIDI Set, so that they can be recalled when required. Selecting another MIDI Set may have a drastic effect on the way your RA-800 behaves in a MIDI setup.

MIDI\RTTime RX, MIDI\Arrng RX, and MIDI\Song RX pages

- Master page: [F3] (MIDI) → [F1] (RTTime), [F2] (Arrng), or [F3] (Sng)
[PAGE] ▲▼ (select the RX page)



Seeing that these three pages feature the same parameters, we will discuss them together. Just remember to press [F1] to select the Realtime (RTTime) level, [F2] to select the Arranger (Arrng) level, or [F3] to select the Song level.

Part

This parameter allows you to select the part whose MIDI RX settings you wish to change. The selectable parts are:

Function key	Selectable parts
[F1] (RTTime)	UP1, UP2, LOW, MBS, MDR
[F2] (Arrng)	ADR, ABS, AC1~AC6
[F3] (Song)	Sng B1~Sng B16

The character and number next to the part name indicate the factory MIDI receive/transmit channel assignment.

Channel (A1~B16)

Allows you to assign a MIDI receive channel (i.e. the channel number used to receive MIDI data coming from external instruments, sequencers, or computers) to the selected part. The letter (A or B) denotes the MIDI INput the transmitter must be connected to (MIDI IN A or MIDI IN B) to control the part in question. By default, all Realtime and Arranger parts are set to receive and transmit MIDI messages via the MIDI A connectors. The Song parts, on the other hand, are set to receive and transmit via the MIDI B connectors.

Note: As long as the Arranger does not play, you may have to set the Style Sync parameter so that the Arranger does not start playing in response to a Start message), you can use the Arranger parts the way you would use the parts of a multitimbral tone generator.

Note: When taking advantage of the Basic Channel control feature, you may have to switch off MIDI reception for the part whose MIDI receive channel has the same number as the Basic Channel. Failure to do so will lead to certain notes being played twice (or unwanted notes being added).

Press the [M.BASS] button to prevent the selected part (Off) from receiving any MIDI messages at all. Otherwise choose On.

Shift (-48~48)

This parameter allows you to transpose the received note messages before sending them to the RA-800's tone generator. You could change the pitch of the received MIDI note messages, which may be useful if you are used to playing a song (that is being received via MIDI) in another key than the one the data were programmed in. The maximum possible transposition is four octaves up (48) or down (-48), each step representing a semitone.

Use the Part Select [LOWER] button to specify whether the Shift interval should be applied (On) or not (Off).

Filter

This parameter allows you to select several MIDI messages and to specify for each of them (i.e. for each selectable parameter) whether (On) or not (Off) the selected message should be received. Use the Part Select [UPPER2] button to select On or Off. The MIDI messages you can filter are:

MIDI message	Meaning
PChng	Program change messages (including Bank Select)
PBend	Pitch Bend messages
Modul	Modulation messages (CC1)
Volum	Volume messages (CC7)
PanPt	Pan(pot) messages (CC10)
Expre	Expression messages (CC11)
Hold	Hold (Sustain, Damper) messages (CC64)
Sostn	Sostenuto messages (CC66)
Soft	Soft messages (CC67)
Revrb	Reverb Send messages (CC91)
Chrus	Chorus Send messages (CC93)
Delay	Delay Send messages (CC94)
ACtr1	Assignable control
RPN	Registered parameter number (CC100/101)
NRPN	Non-registered parameter number (CC98/99)
SysEx	SysEx messages (system exclusive)
C32= 0	What to do when the received CC32 messages equals 0 or is missing <i>Note:</i> For this parameter, you can only select Old or New, i.e. you cannot filter this Bank Select message. (This filter only applies to reception.)

Note: See "MIDI messages used by the RA-800" for details about these MIDI messages.

Limit (High, Low: C-1~G9)

These parameters (High and Low) allow you to set the note range to be received. If not all note messages on the selected MIDI channel should be received by the selected part, set the range to the desired values.

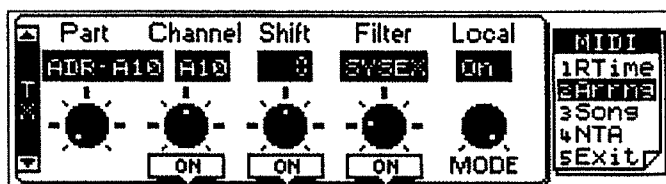
To set the upper limit (High), first press [UPPER1] until the message below the on-screen knob reads High. To set the lower limit, press [UPPER1] to select Low before setting the value with the [UPPER/VARIATION] knob.

Note: The Low Limit cannot be set to a higher value than the High Limit (and vice versa). Once the Low Limit equals the High Limit, setting a higher Low value will also increase the High value.

Note: Some instruments start at C-2 and end at G8 (instead of C-1 and G9). You may have to "add an octave" to the value you see on the screen of your computer or external sequencer.

MIDI\RTIME TX, MIDI\ARRNG TX, and MIDI\SONG TX pages

- ▷ Master page: [F3] (MIDI) → [F1] (RTIME), [F2] (ARRNG), or [F3] (SONG)
[PAGE] ▲▼ (select the TX page)



Part, Channel, Shift, Filter

Except for the fact that these parameters apply to the transmission of MIDI messages (i.e. messages sent whenever you play on the RA-800, select Tones, etc.), these parameters are identical to the RX parameters.

Note: Unless you have a very good reason to do otherwise, we suggest you always select the same TX (transmit) and receive (RX) channel numbers for a part. That will help you spot the problem whenever the part in question does not receive MIDI messages or whenever it sends MIDI data on the "wrong" channel.

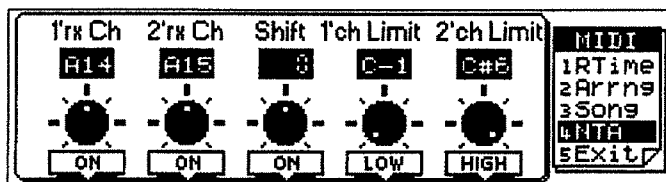
Note: On the RTime RX page, you will also find the three RX Parts. See the Player's Guide for details.

Local (On, Off)

Set Local to On (default setting), whenever you want the RA-800 respond to the Tone selection you perform. Setting Local to Off, on the other hand, means that Tone selection no longer applies to the internal tone generator.

MIDI\NTA page (Note to Arranger receive channels)

- ▷ Master page: [F3] (MIDI)→ [F4] (NTA)



As explained in the *Player's Guide*, there is only one NTA page because the NTA notes are only meaningful to the RA-800 when received from an external MIDI instrument. Contrary to similar instruments of other manufacturers, your RA-800 is blessed with the capability of sending the note numbers of all Arranger parts, so that you could use the internal or your own Styles to quickly record a Song using an external sequencer. Consequently, there is no need to transmit the note messages used to feed the Arranger (the NTA notes).

1'rxCh, 2'rxCh (A1~B16)

The NTA notes can be transmitted on two MIDI channels, so that you could control the RA-800's Arranger using a MIDified accordion or any other instrument capable of sending accompaniment data (or data used to control the accompaniment) on two channels (such as organs with bass pedals, for example).

Note: You cannot assign the same MIDI channel to 1'rxCh and 2'rxCh.

Note: The letter (A or B) refers to the MIDI Input the transmitting instruments should be connected to.

Shift (-48-48)

This parameter allows you to transpose the received note messages before sending them to the RA-800's tone generator. You could change the pitch of the received MIDI note messages, which may be useful if you are used to playing a song (that is being received via MIDI) in another key than the one the data were programmed in. The maximum possible transposition is four octaves up (48) or down (-48), each step representing a semitone.

The Shift parameter applies to both NTA channels.

Use the Part Select [LOWER] button to specify whether the Shift interval should be applied (On) or not (Off).

1'ch Limit, 2'ch Limit (C-1~G9)

High and Low allow you to set the note range to be received. If not all note messages on the selected MIDI channel should be received by the NTA "part", set the range to the desired values.

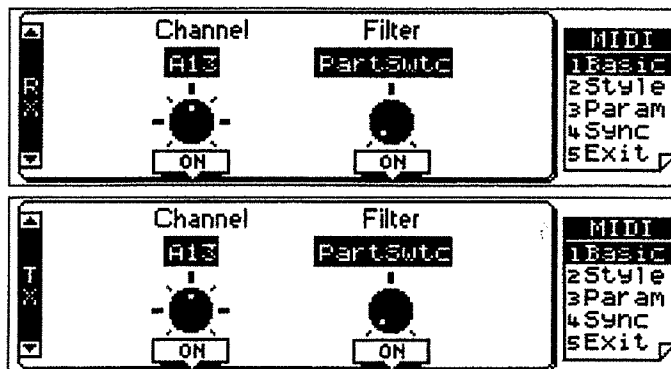
To set the upper limit (High), first press [UPPER 1] until the message below the on-screen knob reads High. To set the lower limit, press [UPPER 1] to select Low before setting the value with the [UPPER/VARIATION] knob.

Note: The Low Limit cannot be set to a higher value than the High Limit (and vice versa). Once the Low Limit equals the High Limit, setting a higher Low value will also increase the High value.

Note: Some instruments start at C-2 and end at G8 (instead of C-1 and G9). You may have to "add an octave" to the value you see on the screen of your computer or external sequencer.

Basic Channel RX and TX pages

- Master page: [F3] (MIDI) → [SHIFT] + [F1] (Basic)
[PAGE] ▲▼ (select RX or TX page)



The Basic Channel is used for several things: to receive and transmit program change and bank select messages for selecting Performance Memories, as well as for the reception and transmission of other kinds of messages that are not directly related to a specific MIDI channel but may affect the RA-800's parts (such as the Part Switch function, for example). The most important function of the Basic Channel is, of course, that it allows you to control the RA-800 as if it were an "extension" of your controller (MIDI Master Keyboard, accordion, MIDI guitar, etc.).

Channel (A1~B16)

Use this parameter to assign an RX (receive) or transmit (TX) channel to the Basic Channel function. If you do not want the Basic Channel messages to be received (or transmitted), use the [ACCOMP/GROUP] button to select Off.

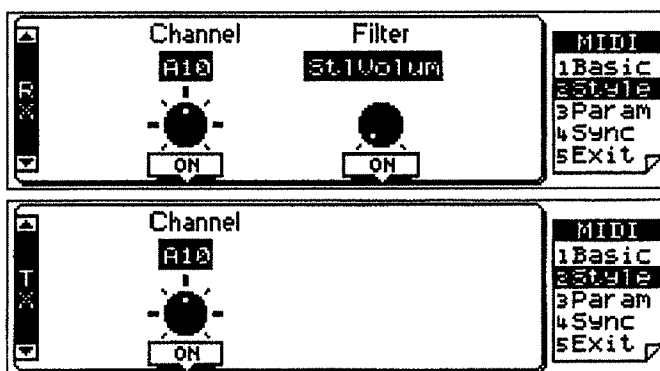
Filter

This parameter allows you to select four functions and specify whether (On) or not (Off) the corresponding MIDI messages should be received (or transmitted):

Filter	Meaning
PartSwtc	Whenever you mute or un-mute a part on the Volume pages, your RA-800 sends an NRPN message that describes your action. The RA-800 allows you to keep it from sending that message (or to respond to it whenever it is received from an external instrument). Especially filtering these messages on the TX page may be useful to keep your external sequencer from recording them – or the receiving GS module from muting the part assigned to that channel.
PrfMemPC	This parameter is used to filter the transmission or reception of program change and bank select messages relative to Performance Memory selection.
MstVolum	This parameter allows you to enable or disable the reception of Master Volume messages that would change the volume of the entire RA-800.
Lyrics	The Lyrics function of your RA-800 is in fact a new kind of MIDI message used to transmit the words (or lyrics) contained in a Standard MIDI File (as meta-text events). Playing back Standard MIDI Files that contain lyrics data causes the RA-800 to send these data on the Basic Channel – unless you set the corresponding filter to Off.

Style Channel RX and TX pages

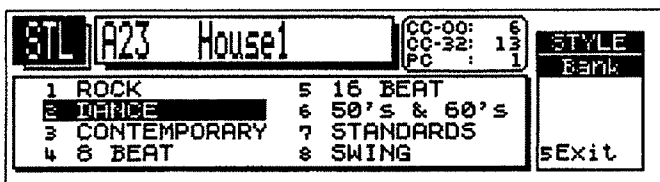
- Master page: [F3] (MIDI) → [SHIFT] + [F2] (Style)
[PAGE] ▲▼ (select RX or TX page)



The Style Channel is a MIDI channel used for receiving and transmitting program change and bank select messages used to select Styles via MIDI, and volume messages that change the volume of a Style. Note that these two message types can only be filtered on the RX page (i.e. you can select whether or not to *receive* them).

Style selection via MIDI

Before delving into this matter, there is something we have to tell about the way Music Styles can be selected via MIDI. The following illustration will help you understand what this is all about:



As you see, the MIDI address of a Music Style consists of three elements: a program change number ("1" here), a CC0 number ("6"), and a CC32 number ("11"). CC0 and CC32 are bank select messages. The values assigned to CC0 and CC32 define the Style,

whereas the program change number defines the pattern (Intro, Ending, etc.). In other words, sending only a program change number will select another pattern of the currently active Style. Only when the program change number is preceded by two values (for CC0 and CC32) will the RA-800 select another Music Style.

Note: Every time you select another Style on your RA-800, it will send a CC0-CC32-PC cluster to the MIDI OUTPUT assigned to the Style channel. See the Style chart at the end of this manual for a complete list of all available Styles and their addresses.

Channel (A1~B16)

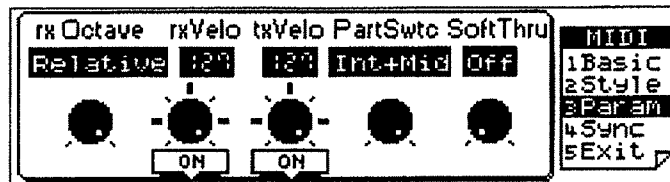
Allows you to assign a MIDI channel to the Style select feature (transmit channel on the TX page and receive channel on the RX page). If you don't want the Style Channel messages to be received (or transmitted), use the [ACCOMP/GROUP] button to select Off.

Filter (only on the RX page)

As stated above, you can filter two types of messages:

Style Filter	Meaning
StiVolum	Volume messages relating to the Music Styles. Select Off if the RA-800 must not receive them.
StylePC	Program change and bank select messages for Style selection. Select Off if the RA-800 must not select other Styles or patterns in response to these incoming messages.

MIDI parameters (Param)



- ▷ Master page: [F3] (MIDI) → [SHIFT] + [F3] (Param)

This page contains several parameters that are not related to each other (contrary to the other MIDI pages that always concentrate on one aspect).

Rx Octave (Absolute, Relative)

Setting	Meaning
Absolute	The parts receive the MIDI note numbers corresponding to the keys you pressed.
Relative	The internal (and automatic) transposition related to the assignment of certain Tones to certain parts is translated into note numbers, so that playing a C4 (note number 60) may actually result in note number 36 being played. This, of course, depends on the Tone you assign to a part. See the <i>Player's Guide</i> for an example.

rxVelo, txVelo, On/Off switches

Your RA-800 is equipped with a tone generator capable of responding to velocity messages. Velocity messages are an important element for musical expression because the way you strike a key results in a loud/bright or soft/round note, telling the listener something about your feelings.

In some cases, however, it may be wiser not to convey the velocity aspect of music making to emulate instruments that are not velocity sensitive (such as organs, for example). The RA-800 allows you to activate or deactivate the transmission and/or reception of velocity messages. Use the [M.BASS] and Part Select [LOWER] buttons to switch the reception (RX) or transmission (TX) of velocity messages on or off.

If you select the Off position, you have to tell your RA-800 which velocity value to use instead of the continuous flux normally received. That is what rxVelo and txVelo are for. The value you set using the [ACCOMP/GROUP] or [BASS/BANK] knob will be used for all notes received via MIDI (RX) or sent to a MIDI OUTput (TX) – but only when the corresponding velocity filter is set to Off.

PartSwtc

The Part Switch parameter on this display page allows you determine what happens when you mute a part on the first Realtime or Arranger Mixer page (see “On/Off (part mute)”). One thing you *know* will happen is that the part in question no longer sounds when you play on the external keyboard – even though its Keyboard Mode indicator lights, or even though the Arranger is playing. What you do *not* see, however, is whether a muted part still sends MIDI data. PartSwtc allows you to specify whether or not a muted part should go on sending MIDI messages to MIDI OUT A or B:

Part Switch	Meaning
Int	A muted part can no longer be played via the the Basic Channel or Arranger but continues to send MIDI messages to the MIDI OUTput it is assigned to.
Int+Mid	A muted part can no longer be played via the Basic Channel or Arranger and no longer sends MIDI messages.

Soft Thru (On, Off)

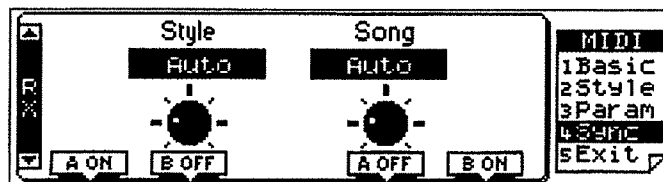
This function actually overrides the MIDI specifications, according to which the MIDI OUTput of an instrument only sends messages generated on the instrument itself (e.g. your RA-800). When you set Soft Thru to On, all notes received on the NTA channel beyond the NTA’s High and Low Limits are re-transmitted to the NTA’s MIDI OUTput. Use the Soft Thru feature for a digital piano or other keyboard instrument without split function.

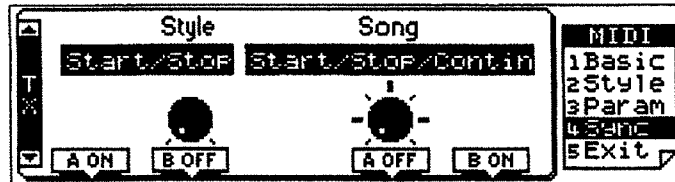
When you set Soft Thru to On, the RA-800 sends a Local message (CC122) with a value “0” to the digital piano, so that the piano’s sound source no longer responds to the notes you play on its keyboard. Seeing that the RA-800 echoes back all notes that are not used to trigger the Arranger, you hear what you play on the piano – except in the zone set apart for the Arranger.

When you set Soft Thru back to Off, the RA-800 sends a Local message with a value “127”, thereby switching the piano’s Local function back on.

MIDI Sync RX/TX

- Master page: [F3] (MIDI) → [SHIFT] + [F4] (Sync)
[PAGE] ▲▼ (select the RX or TX page)





Style (Sync) RX, Song (Sync) RX

The Style Sync and Song Sync parameters on the RX pages are used to specify whether and how the Arranger or Recorder should be synchronized to external sequencers or drum machines. The available options are:

Option	Meaning
Internal	The Arranger or Song will neither start/stop nor follow the tempo of the external MIDI clock source (sequencer, drum machine, etc.).
Auto	As long as the Arranger or Recorder does not receive MIDI Start/Stop and clock commands, it will follow its own tempo and start/stop whenever you press the [START/STOP] or [PLAY ►/STOP ■]/[PLAY►/STOP ■] buttons, or use a footswitch etc. to Start/Stop Arranger or Song playback.
MIDI	The Arranger or Song can only be started or stopped with MIDI realtime messages (Start, Stop, Clock) coming from an external clock source. Be aware that you cannot start Arranger or Song playback on your RA-800 when this mode is selected.
Remote	The Arranger or Recorder waits for a start message to start playback at its own tempo. As soon as it receives a stop message, playback will stop.

A On/Off, B On/Off

Use these switches to select the MIDI INput(s) or OUTput(s) for receiving or transmitting MIDI data. A Off/B Off obviously means that the RA-800 does not send or receive MIDI Sync data.

Style (Sync) TX

The Style Sync parameter on the TX page allows you to specify whether or not the RA-800 should send MIDI realtime messages whenever you start the Arranger. Sending MIDI realtime (start, stop, clock) messages has the advantage that you can synchronize external instruments or computers with your RA-800.

Option	Meaning
Start/Stop	If you select this option, the RA-800 will only send start or stop messages whenever you start (or stop) Arranger playback. In this case, no Clock messages are sent.
Clock	This option means that the Arranger sends both Start/Stop and Clock messages (usual synchronization method).

Again, do not forget to select the right MIDI OUTput to be used for sending these messages.

Song (Sync) TX

Again, there are several option for sending MIDI realtime messages whenever you play back a Song using the RA-800's Recorder:

Option	Meaning
Start/Stop/Continue	If you select this option, the RA-800's Recorder sends only Start/Stop and continue messages. Continue, by the way, is a message used to signal that playback is not started from the beginning of a Song.
Clock	This option means that the Recorder sends both Start/Stop and Clock messages (usual synchronization method).
Song Position Pointer	In this case, the Recorder sends all above MIDI realtime messages as well as Song Position Pointer (SPP) messages. These messages are used to signal the current play back position, so that the slaved (synchronized) drum machine, sequencer, etc. automatically jumps to the correct position upon receiving a Song Position Pointer message.
Song Select	In this case, the Recorder sends Start/Stop/Continue and Clock messages as well as Song Select messages. Song Select messages specify which song memory to select.

Note: See your sequencer's etc. manual to see whether it accepts Song Position Pointer or Song Select messages.

After setting all these parameters, you may wish to save them to a MIDI Set. See the *Player's Guide* for details.

11 Disk mode

The Disk mode contains all functions and parameters relating to saving, loading, deleting files, and to formatting new disks or disks previously used on other instruments or devices.

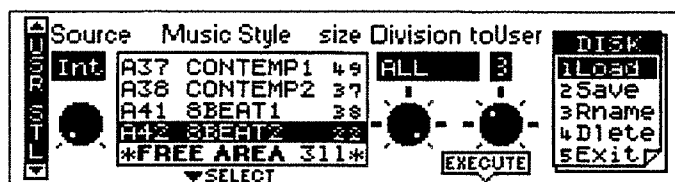
The RA-800 allows you to use both 2DD (double density) and 2HD (high density) disks. The capacity of the latter is twice that of the former.

Note: Though your RA-800 has no problem reading MS-DOS® formatted disks, we recommend you format all your RA-800 disks on the instrument itself because that will speed up the disk operations.

Disk Load (loading data from disk)

Load User Style/Copy ROM Style

- Master page: [F5] (Disk)→[F1] (Load)
[PAGE] ▲▼ (select USR STL)



The first Load page allows you to load User Styles from disk or to copy a ROM Style to a User Style memory.

Source (Int, Dsk)

Source allows you to select the internal memory (ROM Styles) or the floppy (Dsk) inserted into the disk drive. Select Int when you want to copy a ROM Style (i.e. one of the 128 factory Styles) to a User Style memory. Select Dsk to load a Style from disk.

Select

Allows you to position the cursor on the Style you wish to load (or copy).

Division

Allows you to select which pattern (*Division*) of the selected (ROM or User) Style to load: All (all patterns), Int (Intro), End (Ending), Fo (Fill-In To Original), Fv (Fill-In To Variation), Bsc (Basic), Adv (Advanced), Or (Original), Var (Variation) or other possible combinations.

To User (1~8)

Use this parameter to select the destination User Style memory (i.e. the memory the selected Style pattern(s) should be copied to).

Execute

Press [UPPER1] (Execute) to confirm your settings and load the data.

Load Style Set

- Master page: [F5] (Disk)→ [F1] (Load)
[PAGE] ▲▼ (select STL SET)

Music Style Set	size	destination
11 STLSET01	270	1234-678
12 STLSET02	341	-33-5678
13 STLSET03	240	12345678
14 STLSET04	280	1--45-7-
FREE AREA 300		

As explained in the *Player's Guide*, User Style Sets help you save a lot of time because they allow you to load eight User Styles in one pass. User Style Sets can only be saved to disk and may only contain User Styles of that disk.

Select

Allows you to position the cursor on the User Style Set you wish to load.

Destination

This is an information window that tells you which User Style memories will be overwritten when you load the selected User Style Set. A dash (-) means that the corresponding User Style memory will not be overwritten.

Execute

Press Part Select [UPPER1] (Execute) to confirm your settings and load the data.

Load Performance Set

- Master page: [F5] (Disk)→ [F1] (Load)
[PAGE] ▲▼ (select PRF MEM)

Performance Set	Disk	to Int
11 PRFSET01	ALL	ALL
12 PRFSET02		
13 PRFSET03		
14 PRFSET04		
15 PRFSET05		

Loading Performance Memory Sets from disk can be selective, i.e. feel free to load only one Performance Memory, or comprehensive (the contents of all 192 Performance Memories).

Select

Allows you to position the cursor on the Performance Memory Set you wish to load.

Disk (1~192, All)

Use this parameter to select a specific Performance Memory from the Performance Memory Set on disk, or select all to load all Performance Memories.

To Int (1~192, All)

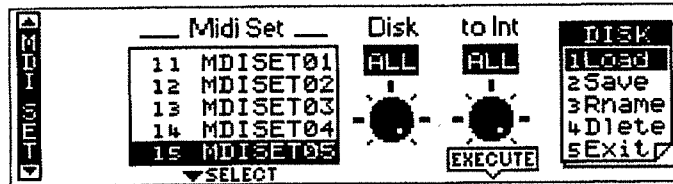
This parameter allows you to specify the Performance Memory number the selected data are to be copied to. If you select All for Disk, All is the only option here. Furthermore, All cannot be selected when you selected a specific Performance Memory for Disk.

Execute

Press Part Select [UPPER1] (Execute) to confirm your settings and load the data.

Load MIDI Set

- Master page: [F5] (Disk)→[F1] (Load)
[PAGE] ▲▼ (select MIDI SET)



Loading MIDI Sets from disk can be selective, i.e. feel free to load only one MIDI Set of a "MIDI Set-Set" (consisting of eight MIDI Sets).

Select

Allows you to position the cursor on the MIDI Set you wish to load.

Disk (1~8, All)

Use this parameter to select a specific MIDI Set from the "MIDI Set-Set" on disk, or select all to load all eight MIDI Sets.

To Int (1~8, All)

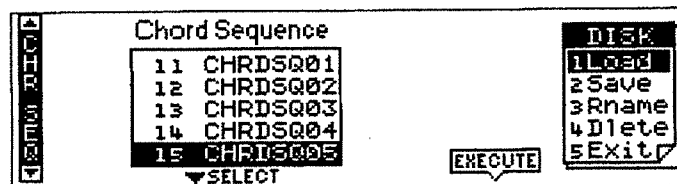
This parameter allows you to specify the internal MIDI Set number the selected data are to be copied to. If you select All for Disk, All is the only option here. Furthermore, All cannot be selected when you selected a specific disk MIDI Set.

Execute

Press Part Select [UPPER1] (Execute) to confirm your settings and load the data.

Load Chord Sequence

- Master page: [F5] (Disk)→[F1] (Load)
[PAGE] ▲▼ (select CHR SEQ)



This function allows you to load a Chord Sequence from disk, thereby overwriting the Chord Sequence in the internal memory.

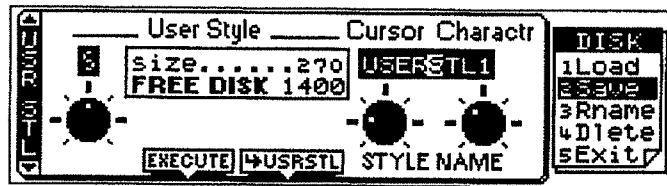
Note: The last Chord Sequence you record or load will be retained in memory when you power off your RA-800.

Disk Save (saving data to disk)

In the *Player's Guide* and while designing the RA-800, we tried to make a clear distinction between *saving* and *writing* data. The term *write* is only used to describe actions that cause certain settings to be saved to an internal memory. *Save*, on the other hand refers to the act of copying internal memory settings to a floppy disk.

Save User Style

- Master page: [F5] (Disk) → [F2] (Save)
[PAGE] ▲▼ (select USR STL)



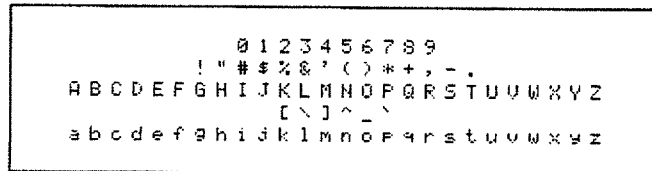
Use this function to save a newly programmed or edited User Style to disk. As explained all along in the *Player's Guide*, you should do so as frequently as possible. In fact, we decided to include a jump function on the User Style pages, allowing you to call up the above page whenever you feel it is time to save your User Style data. That explains the presence of the "jump User" function here: it allows you to return to the User Style mode without first leaving the Disk mode, then select the User Style mode, etc.

Number (1-8)

Allows you to select the internal User Style memory whose data you wish to save to disk.

Cursor/Character

Use these two knobs to select a character position (Cursor) and to assign a character to that position respectively. The available characters are:

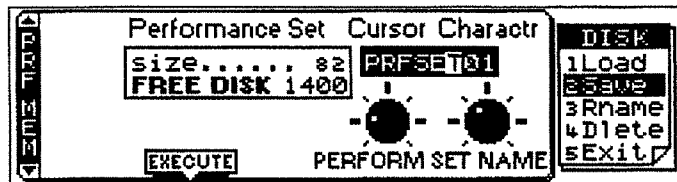


Execute

Press [M.BASS] to confirm your settings and save the data to disk.

Save Performance Memory Set

- Master page: [F5] (Disk)→[F2] (Save)
[PAGE] ▲▼ (select PRF MEM)



This function allows you to save all 192 Performance Memories as a set. The Size value indicates the capacity required to save the Performance Set to disk, while Free Disk tells you something about the remaining disk capacity.

Cursor/Character

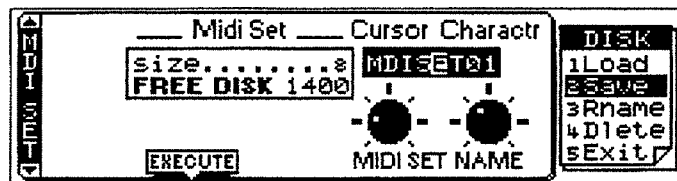
See page 98 for details.

Execute

Press Part Select [M.BASS] to confirm your settings and save the data to disk.

Save MIDI Set

- Master page: [F5] (Disk)→[F2] (Save)
[PAGE] ▲▼ (select MDI SET)



This function allows you to save all 8 MIDI Sets as a set. The Size value indicates the capacity required to save the "MIDI Set-Set" to disk, while Free Disk tells you something about the remaining disk capacity.

Note: Saving a MIDI Set means that the contents of all eight MIDI Sets is saved to disk.

Cursor/Character

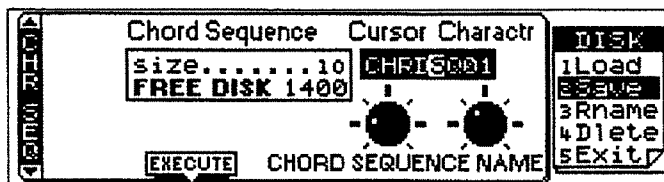
See page 98 for details.

Execute

Press Part Select [M.BASS] to confirm your settings and save the data to disk.

Save Chord Sequence

- Master page: [F5] (Disk)→ [F2] (Save)
[PAGE] ▲▼ (select CHR SEQ)



This function allows you to save the Chord Sequence in the internal memory to disk. The Size value indicates the capacity required to save the Chord Sequence to disk, while Free Disk tells you something about the remaining disk capacity.

Cursor/Character

See page 98 for details.

Execute

Press Part Select [M.BASS] to confirm your settings and save the data to disk.

Rename

The Rename functions allow you to modify the name of a file on the disk you inserted into the RA-800's disk drive. Please be aware that the selected file cannot be assigned the same name as that of another file on the same disk.

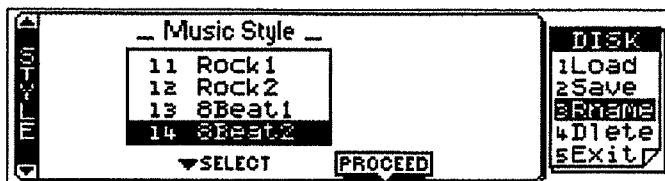
If you try to assign an already existing name to another file on the same disk, the display will respond with a message telling you that is impossible:



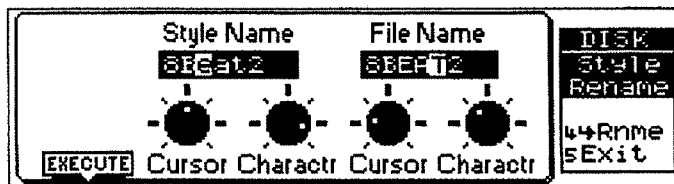
Press [M.DRUMS] to overwrite the other file, or Part Select [UPPER2] (Exit) if you wish to assign another name to the currently selected file.

Rename User Style

- Master page: [F5] (Disk)→ [F3] (Rname)
[PAGE] ▲▼ (select STYLE)



The first Rename User Style page is used to select the disk User Style you wish to rename. After selecting it, press Part Select [UPPER2] (Proceed) to jump to the second page.



Style Name vs. File Name

The Style Name is the name used “internally” by the RA-800. It is not the “official” name of the Style in question (i.e. not the one that will be used to identify the file on disk). The Style Name is actually just another User Style parameter located on this display page. On any display page with a Style name window, the name you set here (Style Name) will appear, e.g.:

Style name: upper- and lowercase letters



What’s the difference? The File Name is an MS-DOS® parameter, which means that you can only use uppercase letters. That, however, may be difficult to read in a given situation. Since the Style Name is part of the User Style parameters, you can also use lowercase letters. So do take the time to enter both names.

Note: Though possible, you should never assign different names to the Style Name and File Name parameters because that may cause confusion.

Cursor/Character

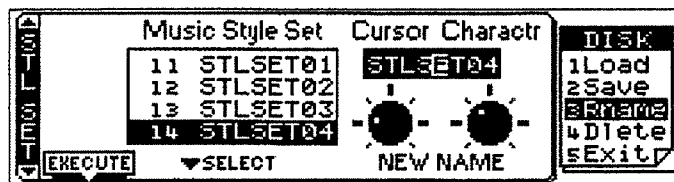
See page 98 for details.

Execute

Press [M.DRUMS] to save the new names to disk.

Rename Music Style Set

- ▷ Master page: [F5] (Disk) → [F3] (Rname)
[PAGE] ▲▼ (select STL SET)



Use this page to rename a User Style Set on disk. If you want the Style Set to be loaded automatically at power-up, call it AUTOLOAD. If that disk is in the drive when you switch on your RA-800, the Autoload Style Set will be loaded automatically.

Select

Allows you to select the file you wish to rename.

Cursor/Character

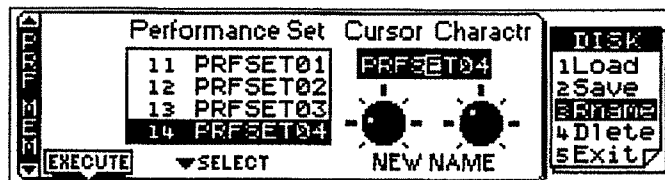
See page 98 for details.

Execute

Press [M.DRUMS] to save the new name to disk.

Rename Performance Set, MIDI Set, Chord Sequence,

- Master page: [F5] (Disk)→ [F3] (Rname)
[PAGE] ▲▼



Save for the fact that the following functions apply to different file types, they are identical, which is why we shall deal with all three of them. Be sure to select the right page using the [PAGE] ▲▼ buttons: PRF MEM (Performance Memory Sets), MDI SET (MIDI Set), or CHR SEQ (Chord Sequence).

Use this page to rename one of these file types on disk.

Select

Allows you to select the file you wish to rename.

Cursor/Character

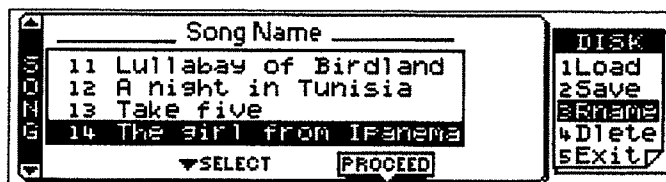
See page 98 for details.

Execute

Press Part Select [M.DRUMS] to save the new name to disk.

Rename Song

- Master page: [F5] (Disk)→ [F3] (Rname)
[PAGE] ▲▼ (select SONG)



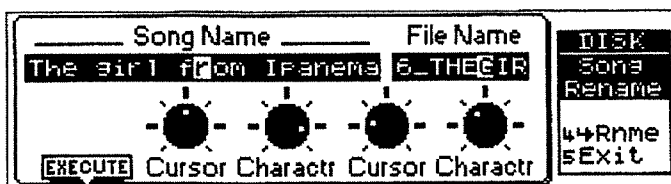
These two pages allow you to assign a different name to a Song on disk.

Select

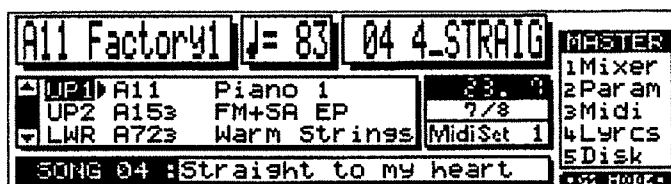
Allows you to select the file you wish to rename.

Proceed

After selecting the file you wish to rename, you must press Part Select [UPPER2] to jump to the second page:



Again, you can set two names. Contrary to the File Name of User Style, a Song's File Name does appear on the display:



Cursor/Character

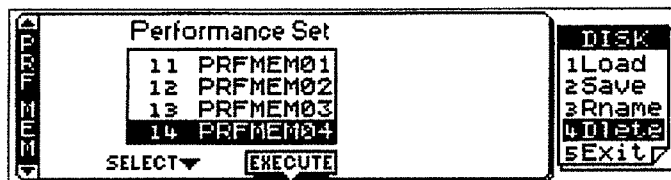
See page 98 for details.

Execute

Press Part Select [M.DRUMS] to save the new name to disk.

Delete

- Master page: [F5] (Disk) → [F4] (Delete)
[PAGE] ▲▼



The Delete function allows you to erase the selected file from the disk you inserted into the drive. Be careful to select the right file type using [PAGE] ▲▼ and file before pressing [BASS/BANK] (Execute):

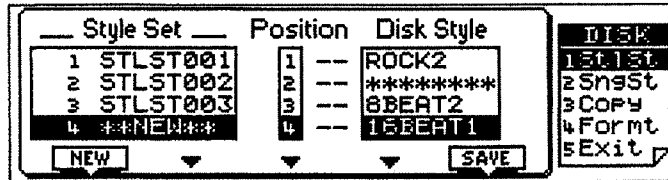
File Type	Explanation
STYLE	User Style
STL SET	User Style Set
PRF MEM	Performance Memory Set (192 Performance Memories!)
MIDI SET	MIDI Set (eight MIDI Sets!)
CHRD SEQ	Chord Sequence
SONG	Recorder Song (Standard MIDI File)
SNG SET	Song Set

Style Set

The Style Set function is used to compile Sets consisting of eight Styles that can be loaded in one pass. A Style Set as such is only a file containing a number of User Style names to be loaded. In other words, a User Style Set does not *contain* the Styles it will copy to the internal memory when you load it.

User Style Sets can only access Styles on the same disk. It is not possible to assign User Styles of other disks to a Style Set.

- Master page: [F5] (Disk) → [SHIFT] + [F1] (St/St)



Style Set

Allows you to select an existing Style Set that can then be edited by assigning other Styles to a given Position (see below).

New

Press [M.DRUMS] (New) to create a new Style Set. It will be temporarily called ***New***, but you can change the name on the second page.

Position (1~8)

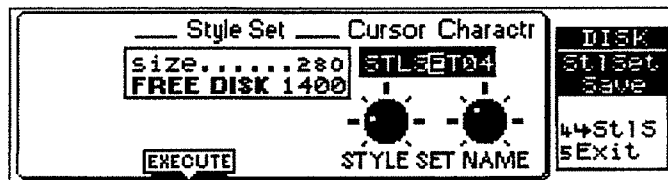
The Position refers to the User Style memory the Style in question will be copied to when you load this User Style Set. In other words, Position 1= User Style Memory 1, 2= 2 (etc.).

Disk Style (only Styles on the current disk)

Allows you to assign a User Style to the currently selected Position. If you do not wish to overwrite a User Style memory when loading this User Style Set, select ***** (no assignment to that Position).

Save

Press [UPPER1] to jump to the Style Set Save page:



Cursor/Character

See page 98 for details. If you want the Style Set to be loaded automatically at power-up, call it AUTOLOAD. If that disk is in the drive when you switch on your RA-800, the Autoload Style Set will be loaded automatically.

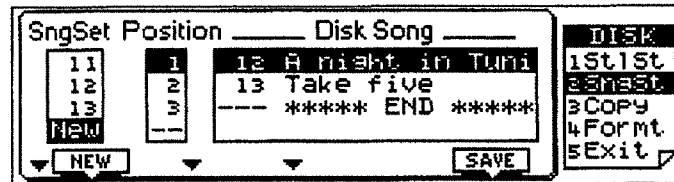
Execute

Press [M.BASS] to save the style Set to disk.

Song Set

Songs Sets are similar to User Style Sets in that they, too, only consist of references to Songs on the same disk. Song Sets allow you to program the playback sequence of a programmable number of Songs. Combined with "Song Set Play", Song Sets can either be used to entertain the audience while you are taking a break, or to assist you while performing with Standard MIDI File backing.

- o Master page: [F5] (Disk) → [SHIFT] + [F2] (SngSt)



Sng Set

This parameter allows you to select an existing Song Set for editing (e.g. to add Songs, change their order, or shorten the Song Set).

New

Press [M.DRUMS] to create a new Song Set.

Position

Use this parameter to select the place in the chain you wish to assign a Song to. For new Song Sets, you cannot select the Position. Instead, assign a Song to the first Position.

Disk Song

Allows you to assign one of the Songs on disk to the inverted Position. When you assign a Song to a Position, the ***End*** event automatically jumps to the next Position in line (i.e. a new Position is inserted). Again assign a Song to the "End" event, etc. To shorten an existing Song Set, select ***End*** instead of a Song name for the Position following the Song that is to become the last one of your Song Set.

Save

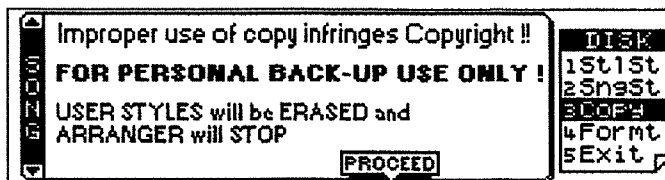
Press [UPPER1] to save the Song Set to disk.

Note: You cannot name Song Sets, so be sure to remember their numbers.

Copy functions

Song Copy

- Master page: [F5] (Disk) → [SHIFT] + [F3] (Copy)
[PAGE] ▲▼ (select SONG)



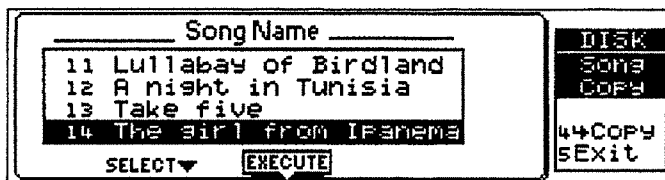
Whenever you select the Copy function, the RA-800 tells you something you already know but may tend to forget at times:

Copying Songs from commercially available Standard MIDI Files is ok as long as you keep the copy (as safeguard against possible disk errors). Under no circumstances, however, may you give copies of copyright-protected material to your friends.

Another important message on this page tells you that the Song Copy function needs the available RAM memory – i.e. the memory set aside for the User Styles.

Be aware that really selecting the Song Copy function (which you haven't done so far), erases all User Styles in the internal memory. Save them to disk before proceeding.

Press Part Select [UPPER2] to proceed:



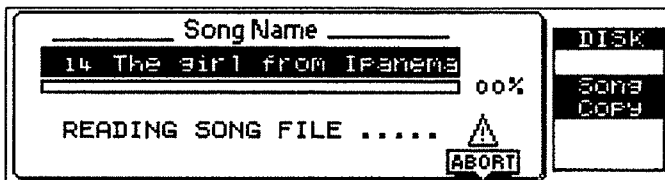
Song Name Select

This function allows you to select the Song (on disk) that you wish to copy to another disk. If you do not find the Song you wish to copy, check whether you have inserted the right disk.

Note: In order allow to you to locate the Song you are after, the names are displayed in the Song Name rather than in the File Name format. See pages 99 and 100 for the difference between these two formats.

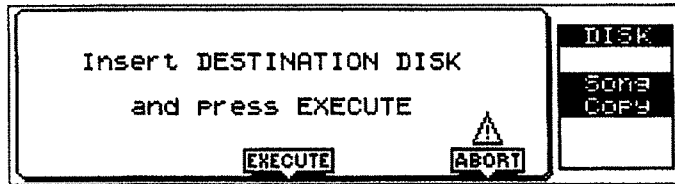
Execute

Press Part Select [LOWER] to confirm your choice and go on to the next page.

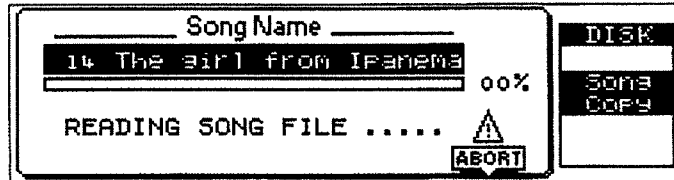


The RA-800 now starts copying the selected Song file to its internal memory. Press [UPPER1] (Abort) if you change your mind about copying the Song.

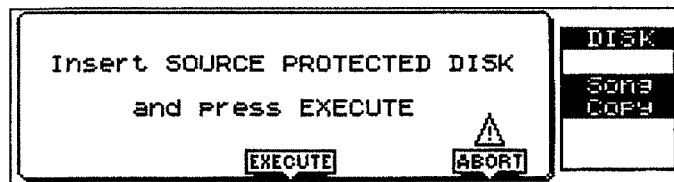
Once the first part of the Song data (or the entire Song) has been copied, the display will prompt you to insert the disk you wish to copy the Song to (the Destination Disk):



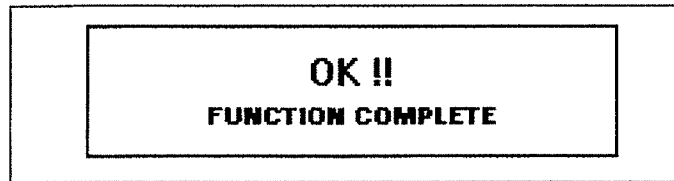
Press Part Select [LOWER] after inserting the disk. Just to inform you that everything is going well, the display responds with:



If the RA-800 was unable to load the entire Song the first time around, it will now prompt you to insert the Source disk (i.e. the disk containing the Song you are copying) once again into the drive:



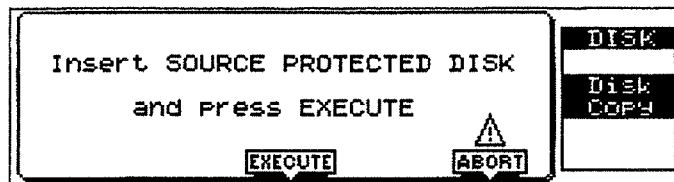
Follow the on-screen instructions until the following message appears to tell you that the file has been successfully copied:



Disk Copy

- ▷ Master page: [F5] (Disk) → [SHIFT] + [F3] (Copy)
[PAGE] ▲▼ (select DISK)

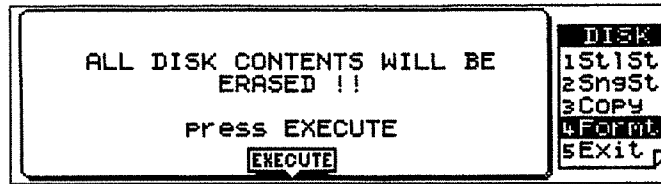
The Disk Copy function is similar to the Song Copy function. This time, however, you are given the opportunity to copy an entire disk (possibly containing User Styles, Performance Memory Sets, etc.). The introductory copyright warning is the same as for Song Copy – and again, the internal RAM memory will be erased to function as buffer memory.



Except for the fact that copying an entire disk takes a little longer than copying just one Song, the operations are the same as for Song Copy.

Disk Format

- ↳ Master page: [F5] (Disk) → [SHIFT] + [F4] (Formt)

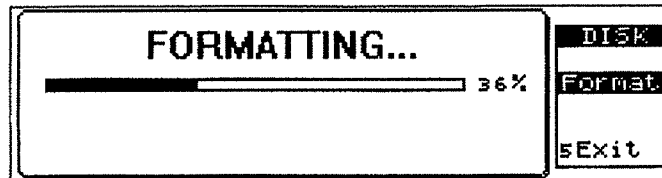


This function allows you to format the disk that is currently in the RA-800's disk drive. Note that you hardly ever need this function because whenever you insert a disk the drive cannot read, the display tells you so and suggests formatting it (or else remove the disk from the drive).

Formatting new disks while taking a break, however, may be useful for those moments where your creative juices suddenly start flowing and you want to start recording right away without first formatting a disk.

Here is how to prepare a bunch of disks for those special moments: first select the Format function, then look at the above message (it means that all data that may be on the disk you are about to format will be erased in this process; have a look at the floppy to make sure it doesn't contain valuable data), and finally press Part Select [LOWER].

During the Format operation, the following message will be displayed:



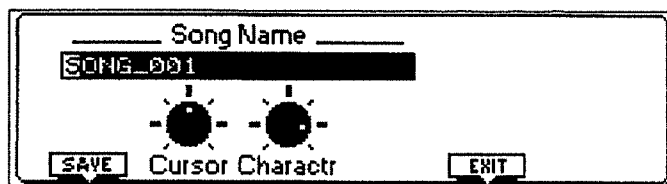
When your disk is ready for use, the display briefly tells you the Format operation is completed:



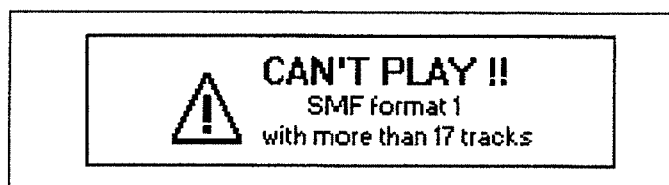
12 Display messages

Sometimes, you may come across a display message you do not understand. For your reference, here are all the messages you are likely to see at certain points.

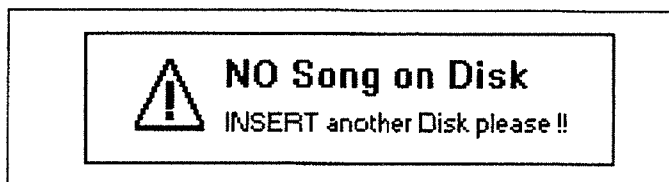
Messages relating to the Recorder or Disk functions



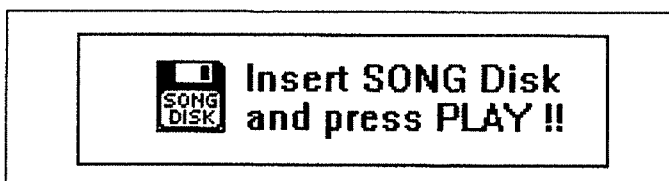
This display page appears when you press the [PLAY ►/STOP ■] button after recording a Recorder Song. If you wish to keep what you have just recorded, assign a name to your Song and press [M.DRUMS] (Save) to save it to disk. Otherwise, press Part Select [UPPER2] (Exit).



The Standard MIDI File contains more than 17 tracks, which is not acceptable for Format 1 Standard MIDI Files. The Recorder cannot play it back.



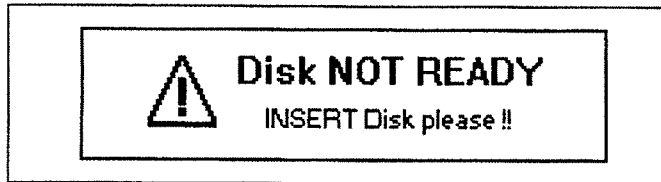
The disk you inserted into the drive does not contain Song files. Remove it and insert a disk that does contain Recorder Song files.



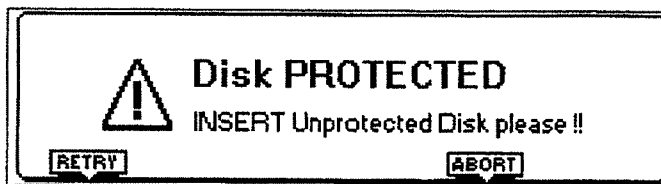
You are trying to start Recorder playback without having inserted a disk into the drive. Insert a disk containing Song files and press [PLAY ►/STOP ■].



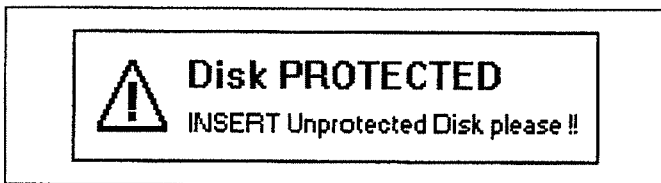
The disk you insert into the drive cannot be read or does not allow to save data. Remove it from the drive and insert another one.



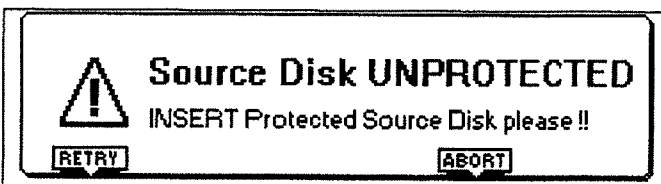
You are trying to use the Recorder or a Disk function while the disk drive is empty. Insert a disk into the drive.



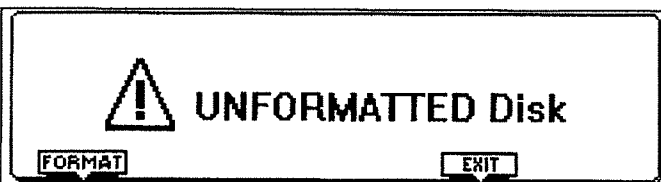
You are trying to save data to or format a disk whose protection tab is set to the PROTECT position. Remove the disk from the drive, disable its write protection and press [M.DRUMS] (Retry). If you don't want to save data to this disk, press Part Select [UPPER2] (Abort).



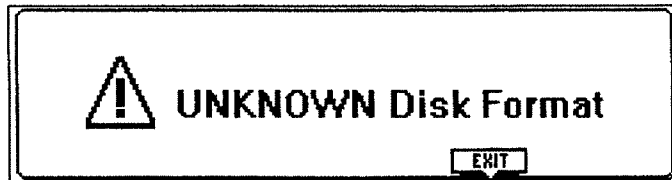
This message means the same as the previous one. Only, this time, it will disappear automatically. That is why there is no Retry or Abort function.



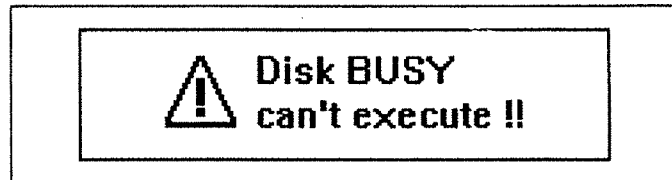
The disk you are about to copy data from is not write protected. Remove the disk from the drive, enable its write protection and press [M.DRUMS] (Retry). If you don't want to load data from this disk, press Part Select [UPPER2] (Abort).



The disk you have inserted into the drive is not formatted. If you want to format it now, press [M.DRUMS] (Format). Otherwise, press Part Select [UPPER2] (Exit).



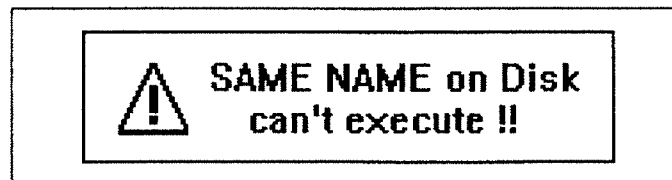
The disk you have inserted into the drive is formatted, yet the RA-800 cannot read this format. Press Part Select [UPPER2] (Exit), and remove the disk from the drive. If you are positive that you no longer need the data on this disk, format it using the Format function.



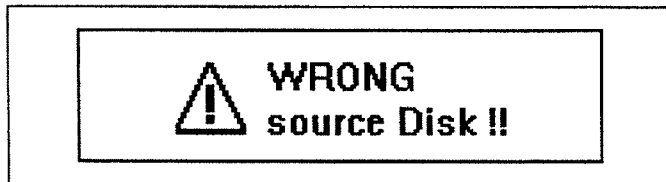
You are trying to execute a Disk function while the Recorder is playing back (or vice versa). That is impossible.



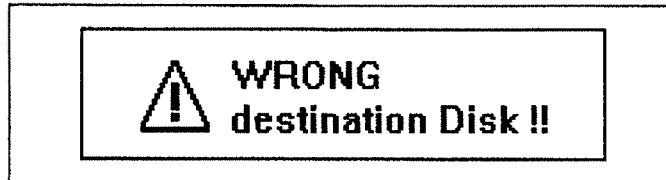
Both messages mean that you can't save data to this disk. The first message means that the remaining disk capacity is not enough to hold the file you are about to save, while the second tells you that the maximum number of files accepted by the MS-DOS® (and RA-800) disk operating system would be exceeded by saving the current file to this disk. In either case, press Part Select [UPPER2] (Exit).



The name you have assigned to the file you are about to save or rename already exists on that disk. If possible (first display message), press [M.DRUMS] to overwrite the file of the same name, or Part Select [UPPER2] (Exit) to assign another name to the current file. In the second case, the message will disappear after a few seconds.

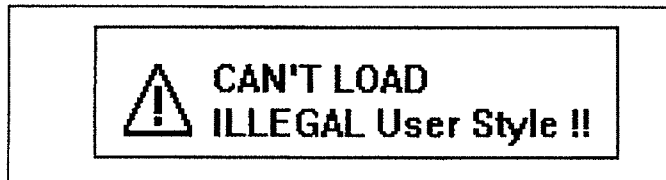


The disk you inserted after removing the destination disk (during Song or Disk Copy) is not the one you inserted the first time. Insert the proper disk.



The disk you inserted after removing the source disk (during Song or Disk Copy) is not the one you inserted at the first Insert Destination Disk prompt. Insert the proper disk.

Messages relating to the User Style function

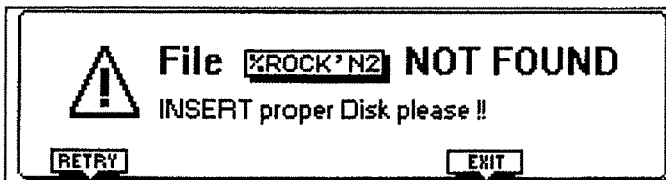


The User Style you are trying to load is not an MSA, MSD or MSE User Style and therefore cannot be loaded.

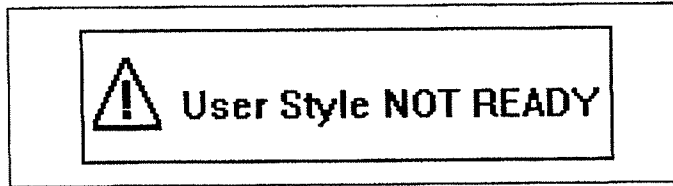


The Performance Memory you selected did not find the User Style, whose name appears in the upper line, in the indicated User Style memory. Press [M.DRUMS] to load the Style in question now. If you do not need that User Style, press Part Select [UPPER2] (Exit).

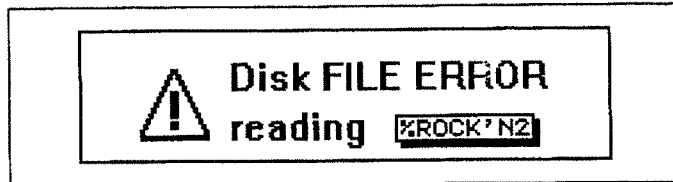
If you pressed [M.DRUMS] (Load), the following message may appear to signal that the current disk in the disk drive does not contain that User Style:



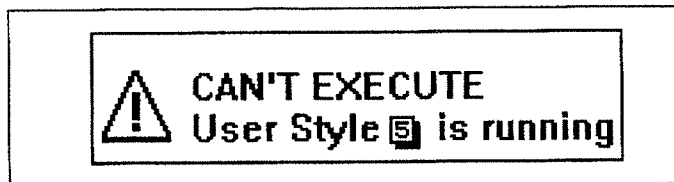
Press [M.DRUMS] to retry reading the disk, or Part Select [UPPER2] (Exit).



This message appears whenever you select an empty User Style memory. Wait for the message to disappear and continue.

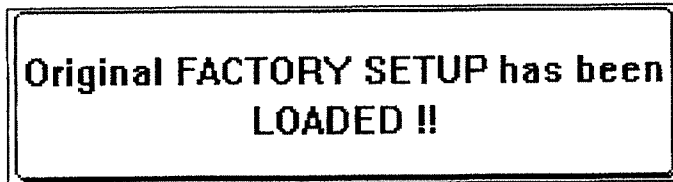


The User Style file you are trying to load is damaged. Try again using your backup disk and save the User Style to another disk to avoid using your backup disk.



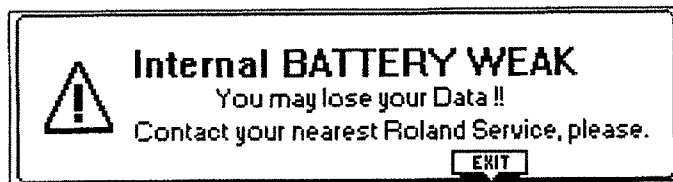
You are trying to load a User Style to the above memory, while the Style in that memory is being used. That is impossible.

General messages



This message appears whenever you initialize your RA-800: hold down the [WRITE] button while powering on your RA-800.

Note: Doing so will clear all Performance Memories and MIDI Sets as well as the Chord Sequence.



The lithium battery that powers the unit's memory circuits (Performance Memories, MIDI Sets, and Chord Sequence) is almost depleted. Have it replaced by your Roland dealer.

13 Music Style chart

Music Style	CC0	CC32	Music Style	CC0	CC32	Music Style	CC0	CC32
A11HardRock	1	15	A71 Ballad1	4	12	B51 ArgTango	26	6
A12 HardEdge	1	16	A72 Ballad2	4	8	B52 EurTango	26	4
A13 BritRock	1	9	A73 Ballad3	4	9	B53 Polka	19	6
A14 Rock	1	17	A74 Blues	44	3	B54 Quadrgl	53	3
A15 Metal	1	18	A75 BlueBeat	44	4	B55 Tarantel	53	4
A16 BalRock1	1	19	A76 R&B	44	5	B56 SIFoxtrt	34	4
A17 BalRock2	1	20	A77 BigBand	14	3	B57 Foxtrot	34	3
A18BalRock3	1	10	A78 Shuffle	15	3	B58 March	20	5
A21 PopRap	33	2	A81 SISwing1	13	7	B61 DiscoFox	2	22
A22 Rap	33	3	A82 SISwing2	13	5	B62 Schlagr1	5	12
A23 House1	2	13	A83 SISwing3	13	6	B63 Schlagr2	39	9
A24 House2	2	19	A84 MedSwing	13	8	B64 Schlagr3	39	10
A25 Techno1	2	14	A85 Swing1	12	6	B65 DWalzer	17	17
A26 Techno2	2	20	A86 Swing2	12	5	B66 DMarsch1	20	7
A27 Dance1	2	21	A87 CoolJazz	12	7	B67 DMarsch2	20	8
A28 Dance2	2	15	A87 SwCombo	12	8	B68 VlkMusik	20	9
A31 Funk1	3	6				B71 Sevilla	60	0
A32 Funk2	3	7				B72 SpRhumba	60	1
A33 Fusion1	28	3	B11 Bossa1	22	7	B73 Cumbia	46	1
A34 Fusion2	28	2	B12 Bossa2	22	8	B74 PDoble	40	2
A35 ElJazz1	28	4	B13 LatinRk	22	11	B75 SCountry	16	6
A36 ElJazz2	28	5	B14 Latin	22	9	B76 S 8Beat	6	20
A37 Contemp1	28	6	B15 SambaRio	27	6	B77 S Foursh	15	5
A38 Contemp2	28	7	B16 MdnSamba	27	8	B78 S Boogie	10	15
A41 8Beat1	6	16	B17 DscSamba	27	7			
A42 8Beat2	6	9	B18 Calypso	35	2	B81 Gospel	44	6
A43 8Beat3	6	10				B82 C'Ballad	4	13
A44 8Beat4Rk	6	17	B21 Mambo1	38	3	B83 C'Westrn	4	14
A45 8Beat5Rb	6	18	B22 Mambo2	38	4	B84 C'Swing	12	9
A46 8Beat6	6	11	B23 Mereng1	59	0	B85 C'Boogie	9	4
A47 8Beat7Sw	6	12	B24 Mereng2	59	1	B86 Country	16	5
A48 8Beat8Sw	6	19	B25 Salsa1	25	3	B87 Cajun	10	16
A51 16Beat1	7	10	B26 Salsa2	25	2	B88 B'Grass	16	7
A52 16Beat2	7	21	B27 ChaCha1	24	5			
A53 16Beat3	7	11	B28 ChaCha2	24	3			
A54 16Beat4	7	22						
A55 16Beat5	7	23	B31 Reggae1	8	4			
A56 16Beat6	7	12	B32 Reggae2	8	6			
A57 16Beat7S	7	13	B33 PopRock	39	6			
A58 16Beat8	7	24	B34 Rhumba1	23	4			
A61 Boogie	9	3	B35 Rhumba2	23	3			
A62 Rock'N1	10	12	B36 Beguine	39	7			
A63 Rock'N2	10	13	B37 Dixie	11	3			
A64 Twist	10	14	B38 Charlest	11	4			
A65 SiRock1	5	10						
A66 SiRock2	5	11	B41 SiWaltz1	18	7			
A67 SiRock3	5	7	B42 SiWaltz2	18	5			
A68 SiRock4	5	8	B43 JazzWltz	17	11			
			B44 Waltz	17	12			
			B45 Musette	17	14			
			B46 FrWaltz	17	15			
			B47 Mazurka	17	16			
			B48 Baroque	21	2			

Program Change numbers

- 01: Basic/Original
- 09: Basic/Variation
- 02: Advanced/Original
- 10: Advanced/Variation
- 65: Basic/Intro
- 66: Advanced/Intro
- 73: Basic/Ending
- 74: Advanced/Ending
- 89: Fill-in To Original/Basic
- 90: Fill-in To Original/Advanced
- 97: Fill-in To Variation/Basic
- 98: Fill-in To Original/Basic
- 113: Break Mute

MIDI IMPLEMENTATION CHART

[REALTIME ARRANGER]
Model RA-800

MIDI PORT A
MIDI SET 2: Digital Piano

Date: May 1996
Version: 1.00

FUNCTION	TRANSMITTED	RECOGNIZED	REMARKS	
Basic Channel Default Changed	1 1-16, OFF	1 1-16, OFF	TX: 1 = Soft Thru RX: 1 = Basic	
Mode Default Messages Altered	Mode 3 Mode 3, 4 (M=1) *****	Mode 3 Mode 3, 4 (M=1)	*2	
Note Number: True voice	0-127 *****	0-127 0-127	*1	
Velocity Note ON Note OFF	O *1 X	O *1 X		
After Touch Key's Ch's	X X	O O	*1 *1	
Pitch Bender	O *1	O *1		
Control Change	0,32 O *1 1 O *1 5 O 6,38 O 7 O *1 10 O *1 11 O *1 64 O *1 65 O *1 66 O *1 67 O *1 84 O 91 O *1 93 O *1 94 O *1 98,99 O *1 100,101 O *1 120 X 121 X	O *1 O *1 O O O *1 O *1 O *1 O O (Reverb) *1 O (Chorus) *1 O (Delay) *1 O *1 O *1 O	O *1 O *1 O *1 O *1 O *1 O *1 O *1 O *1 O *1 O (Reverb) *1 O (Chorus) *1 O (Delay) *1 O *1 O *1 O	Bank select Modulation Portamento time Data entry Volume Panpot Expression Hold 1 Portamento Sostenuto Soft Portamento control Effect 1 depth Effect 3 depth Effect 4 depth NRPN LSB, MSB RPN LSB, MSB All sound off Reset all controllers
Prog change: True #	O *1 *****	O *1 0-127	*1 Program Number 1-128	
System Exclusive	O	O		
System Common : Song Pos : Song Sel : Tune	X X X	X X X		
System Real Time : Clock : Commands	O *1 O *1	O *1 O *1		
Aux Messages : Local ON/OFF : All Notes OFF : Active Sense : Reset	O *1 X O X	O *1 O (123-125) O X		
Notes	*1 O X is selectable *2 Recognize as M=1 even if M%1			

Mode 1: OMNI ON, POLY
Mode 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO
Mode 4: OMNI OFF, MONO

O: YES
X: NO

15 Chord Intelligence

C	C#	D	E \flat	E	F
CM7	C#M7	DM7	E \flat M7	EM7	FM7
C7	C#7	D7	E \flat 7	E7	F7
Cm	C#m	Dm	E \flat m	Em	Fm
Cm7	C#m7	Dm7	E \flat m7	Em7	Fm7
CmM7	C#mM7	DmM7	E \flat mM7	EmM7	FmM7
Cdim	C#dim	Ddim	E \flat dim	Edim	Fdim
Cm7 (b5)	C#m7 (b5)	Dm7 (b5)	E \flat m7 (b5)	Em7 (b5)	Fm7 (b5)
Caug	C#aug	Daug	E \flat aug	Eaug	Faug
Csus4	C#sus4	Dsus4	E \flat sus4	Esus4	Fsus4
C7sus4	C#7sus4	D7sus4	E \flat 7sus4	E7sus4	F7sus4

F#	G	A \flat	A	B \flat	B
F#M7	GM7	A \flat M7	AM7	B \flat M7	BM7
F#7	G7	A \flat 7	A7	B \flat 7	B7
F#m	Gm	A \flat m	Am	B \flat m	Bm
F#m7	Gm7	A \flat m7	Am7	B \flat m7	Bm7
F#mM7	GmM7	A \flat mM7	AmM7	B \flat mM7	BmM7
F#dim	Gdim	A \flat dim	Adim	B \flat dim	Bdim
F#m7(b5)	Gm7(b5)	A \flat m7(b5)	Am7(b5)	B \flat m7(b5)	Bm7(b5)
F#aug	Gaug	A \flat aug	Aaug	B \flat aug	Baug
F#sus4	Gsus4	A \flat sus4	Asus4	B \flat sus4	Bsus4
F#7sus4	G7sus4	A \flat 7sus4	A7sus4	B \flat 7sus4	B7sus4

(Stars: Way to play "intelligent chords" Dots: Full chords)

16 Specifications

Realtime Arranger RA-800

Sound Source:	Newly developed sound source with TVF (GM/GS format)
Maximum polyphony:	64 voices
Tones:	689 enhanced variation Tones + 25 Drum Sets
Macro Editing:	Vib Rate, Vib Depth, Vib Delay, Cutoff Freq, Resonance, Attack Time, Decay Time, Release Time
Built-in Music Styles:	128 at high definition (120 cpt/♪ including Pitch Bend, Control Changes etc.), 8 polyphonic tracks for each division
User Styles:	8, completely programmable (8 tracks per Style)
Performance Memories:	192
MIDI Sets:	8
Recorder:	Direct-to-disk
Built-in effects:	Digital Reverb, Chorus, Delay (Realtime parts), Equalizer
HD floppy disk drive:	SMF playback without loading. User Style, User Style Set, Performance Memories, MIDI Set, Chord Sequences [Load/Save]
Alpha Dials:	6 dials for Real Time editing (5 knobs, 1 Tempo dial)
Display:	Graphic 240 x 64 pixels, backlit LCD with software window management
Rear Panel:	MIDI A (In, Out, Thru), MIDI B (In, Out, Thru), RRC, Output L/Mono,R, Sustain Switch socket, Foot Switch socket, Exp Ped Socket, Multi Foot switch socket (FC7), LCD Contrast, Metronome Out, Metronome Volume, AC In socket, Phones, Power On/Off Switch
Dimensions:	463(W) x 285(D) x 116(H) mm (18-1/4(W x 11-1/4(D) x 4-5/8(H)”)
Weight:	5,6 Kg.
PANEL CONTROLS	
Recorder:	Song Select, REW, FF, Marker, Click, Reset, Play/Stop, REC
Chord Sequencer:	Play/Stop, REC
Music Style:	Group (A, B, User), Number (1~8), Drum Variation, User, MIDI Set
Fade:	Out
Fill:	Fill to Variation, Fill to Original, Half Bar, Rit, Break Mute
Synchro:	Start, Stop
Real Time control:	Advanced (& Basic), Variation (& Original), Intro, Start/Stop, Ending, Reset/Tap Tempo, Melody Intelligence, Chord Inversion
Tone/Performance Memories:	Group (A, B, C, D), Number (1~8), Down, Up, Variation ◀▶
Octave:	Down, Up
Transpose:	On/Off
Tempo:	Auto/Lock, Rit, Acc, One Touch
GM/GS mode	
Display controls:	[PAGE] ▲▼, Alpha Dial (x5), Function keys ([F1]~[F5]), Arranger Chord, Keyboard Mode, Tone select, Volume select, Shift, Write, Tempo Dial, Part Select (MDrums, MBass, Lower, Up2, Up1)

Specifications and appearance subject to change without prior notice.

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TEL: (02) 453 426
(02) 466 423

DENMARK

Roland Scandinavia A/S
Langebrogade 6 Post Box 1937
DK-1023 Copenhagen K.
DENMARK
TEL: 32 95 3111

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Guillard Musiques Roland
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MIRIBEL FRANCE
TEL: 7226 5060

Guillard Musiques Roland
(Paris Office)

1923 rue Léon Geoffroy 94400
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TEL: (1) 4680 86 62

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Filiäl Finland
Lauttasaarentie 54 B
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TEL: (0) 682 4020

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Musikinstrumente
Handelsgesellschaft mbH.
Oststrasse 96, 22844 Norderstedt,
GERMANY
TEL: (040) 52 60090

GREECE

V. Dimitriadis & Co. Ltd.
20, Alexandras St. & Bouboulinas
54 St. 106 82 Athens, GREECE
TEL: (01) 8232415

HUNGARY

Intermusica Ltd.
Warehouse Area 'DEPO' Pf.83
H-2046 Torokbalint, HUNGARY
TEL: (23) 338 041

IRELAND

The Dublin Service Centre
Audio Maintenance Limited
11 Brunswick Place Dublin 2
Republic of IRELAND
TEL: (01) 677322

ITALY

Roland Italy S. p. A.
Viale delle Industrie, 8
20020 Arese Milano, ITALY
TEL: (02) 93581311

NORWAY

Roland Scandinavia Avd.
Kontor Norge
Lilleakerveien 2 Postboks 95
Lilleaker N-0216 Oslo
NORWAY
TEL: 273 0074

POLAND

P. P. H. Brzostowicz Marian
UL. Blokowa 32, 03624 Warszawa
POLAND
TEL: (022) 679 44 19

PORTUGAL

Caius - Tecnologias Audio e
Musica, Lda.
Rue de Catarina 131
4000 Porto, PORTUGAL
TEL: (02) 38 4456

RUSSIA

PETROSHOP Ltd.
11 Sayanskaya Street Moscow
11531, RUSSIA
TEL: 095 901 0892

SPAIN

Roland Electronics
de España, S. A.
Calle Bolivia 239 08020 Barcelona,
SPAIN
TEL: (93) 308 1000

SWEDEN

Roland Scandinavia A/S
Danvik Center 28 A, 2 tr.
S-131 30 Nacka SWEDEN
TEL: (08) 702 0020

SWITZERLAND

Roland (Switzerland) AG
Musitronic AG
Gerberstrasse 5, CH-4410 Liestal,
SWITZERLAND
TEL: (061) 921 1615

UKRAINE

TIC-TAC
Mira Str. 19/108
P.O.Box 180
295400 Munkachevo, UKRAINE
TEL: (03131) 414-40

UNITED KINGDOM

Roland (U.K.) Ltd., Swansea
Office
Atlantic Close, Swansea,
Enterprise Park SWANSEA
West Glamorgan SA7 9FJ,
UNITED KINGDOM
TEL: (01792) 702701

For Nordic Countries

Apparatus containing Lithium batteries

ADVARSEL!

Lithiumbatteri - Eksplosjonsfare ved feilagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

VARNING!

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

ADVARSEL!

Lithiumbatteri - Eksplosjonsfare.
Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten.
Brukt batteri returneres apparatleverandøren.

VAROITUS!

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

For E.C. Countries

This product complies with EC directives

- LOW VOLTAGE 73/23
- EMC 89/336*

Dieses instrument entspricht folgenden EG-Verordnungen:

- NIEDRIGE SPANNUNG 73/23
- EMC 89/336*

Cet instrument est conforme aux directives CE suivantes:

- BASSE TENSION 73/23
- EMC 89/336*



Questo prodotto è conforme alle seguenti direttive CEE

- BASSA TENSIONE 73/23
- EMC 89/336*

Dit instrument beantwoordt aan de volgende EG richtlijnen:

- LAGE SPANNING 73/23
- EMC 89/336*

Este producto cumple con las siguientes directrices de la CE

- BAJO VOLTAJE 73/23
- EMC 89/336*

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

CLASS B This digital apparatus does not exceed the Class B limits for radio noise emissions set out in the Radio Interference Regulations of the Canadian Department of Communications.

CLASSE B

AVIS

Cet appareil numérique ne dépasse pas les limites de la classe B au niveau des émissions de bruits radioélectriques fixés dans le Règlement des signaux parasites par le ministère canadien des Communications.

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