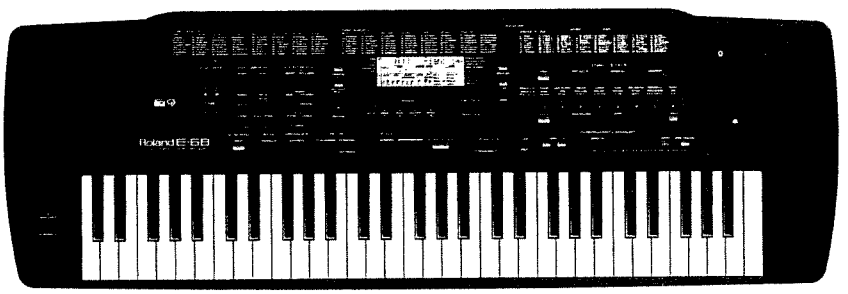
Roland

E-68

INTELLIGENT KEYBOARD



Owner's Manual

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.

For Canada

CLASS B **NOTICE**

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.

For E.C. Countries

This product complies with EC directives
- EMC 89/336"

Dieses instrument entspricht folgenden EG-Verordnungen:
- EMC 89/336"

Cet instrument est conforme aux directives CE suivantes:
- EMC 89/336"

CE

Questo prodotto é conforme alle seguenti direttive CEE
- EMC 89/336"

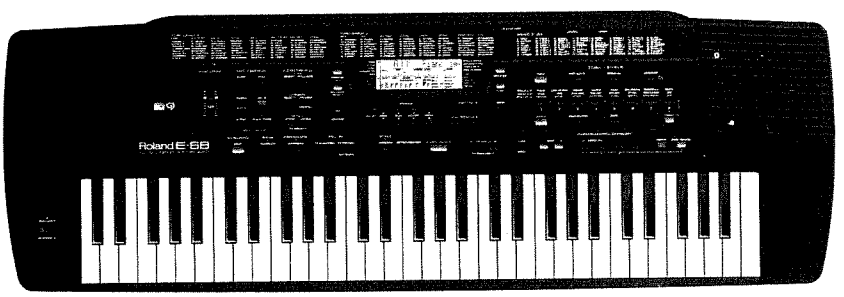
Dit instrument beantwoordt aan de volgende EG richtlijnen:
- EMC 89/336"

Este producto cumple con las siguientes directrices de la CE
- EMC 89/336"

Roland

E-68

INTELLIGENT KEYBOARD



Owner's Manual

Introduction

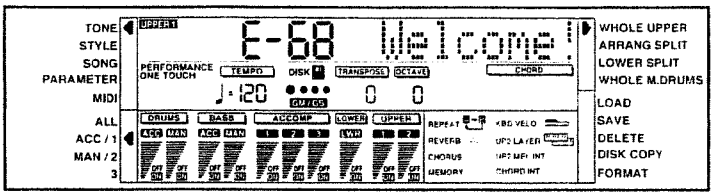
Welcome to the E-68

Thank you for purchasing the Roland E-68 Intelligent Keyboard. Ever since the introduction of its Intelligent Synthesizer keyboard line, the name Roland has come to be associated with the best sounding and certainly most musical "keyboards" available.

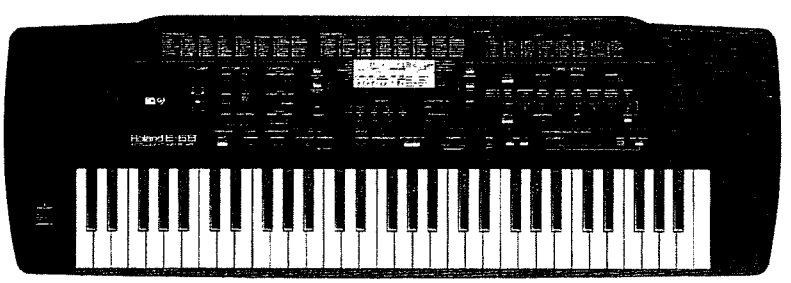
The E-68's professional sound source and high-quality accompaniments once again testify to the fact that you don't need the biggest Roland instrument available to have a lot of fun and to play your favourite music. After all, every Roland Intelligent Keyboard, big or small, has three things going for it: rich, vibrant sounds, awesome accompaniments, and a number of functions that are definitely a cut above the rest.

Note: *To avoid confusion, let us agree to use the word "button" for all keys on the front panel, and only use "key" when referring to the E-68's keyboard.*

Note: *We decided against using display illustrations that contain all information you may see in a given situation. Doing so will help you locate the relevant information on your display even though it contains more items than our illustrations.*



Main features of your E-68



- **64 Music Styles**

Your E-68 comes loaded with an impressive *64 Music Styles* covering every musical genre you need. Each Style (automatic accompaniment) comprises four versions (Basic, Advanced, Original, and Variation), two Intros, two Endings, and various

other elements that actually add up to far more than 64 accompaniments.

If necessary, you can expand the number of Styles using TN-SC2 Style cards (see your Roland dealer for details)

- **64 Performance Memories**

Apart from allowing you to customize Style and Song playback, the Performance Memories are also used to save all panel settings. If you need more than 64 memories, you can save the contents of the Performances to floppy disk and load them whenever necessary.

- **Truly intelligent**

In Chord Intelligent mode, you only need to play root notes in order to have the Arranger play major chords, or press a mere two or three keys to sound even the most complex chords you can think of.

- **Four "One Touch" memories per Style**

Your E-68 provides four automatic registration memories per Music Style. These One Touch memories contain suitable sound selection and effect settings for the selected Music Style, so that you don't even need to program your own registrations if you feel that tends to affect your concentration and inspiration.

- **241 top-notch sounds**

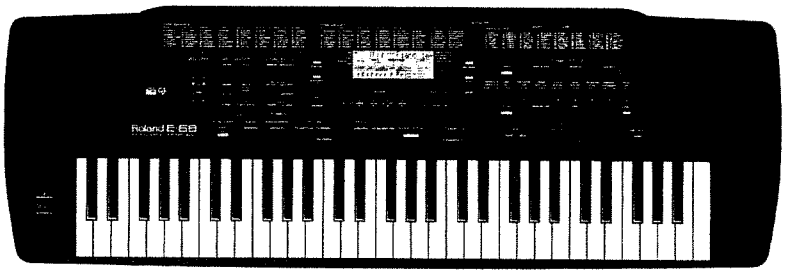
Your E-68 comes loaded with 241 sounds, most of which are derived from Roland's professional synthesizers and samplers. No matter which style you want to play, there will always be a few sounds to choose from.

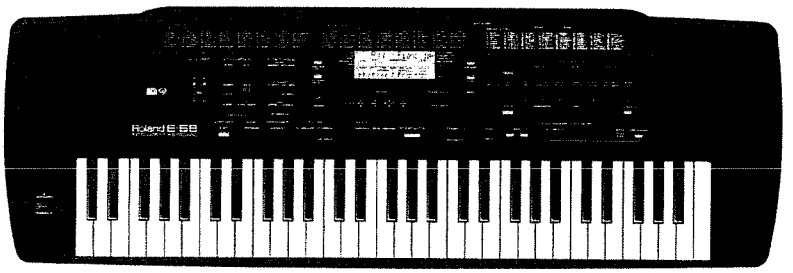
- **2 digital effects**

The digital Chorus and Reverb effects put the icing on the otherwise vibrant "sound cake".

- **Four convenient Keyboard Modes**

With the E-68, you can choose whether to play one sound on the

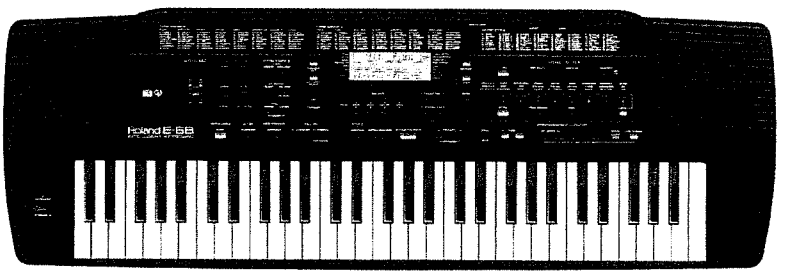




entire keyboard (Whole Upper), play the melody and trigger the Arranger (Arrang Split), play the melody with one sound while adding a chord and/or bass backing with your left hand (Lower Split), or play the drums on the entire keyboard (Whole M.Drums).

- **Recorder**

The E-68 gives you enough flexibility to make professional sounding recordings. True to the Roland tradition, everything the Arranger plays can be recorded so that you can play back Standard MIDI Files recorded with the Recorder on any SMF compatible sequencer, using any GM/GS compatible sound source, and still benefit from the accompaniment you used during the recording.



Unpacking Your E-68

Your E-68 comes with the following items. Please check the contents of the cardboard box and report any problems to the Roland dealer you purchased the E-68 from.

- This Owner's Manual.
- A metal music rest
- An ACJ adaptor.

Useful options

(1) DP-2, DP-6, or FS-5U Foot Switch

An optional DP-2, DP-6 or Boss FS-5U foot switch can be connected to the SUSTAIN FOOTSWITCH jack to function as Hold pedal.

(2) TN-SC2 Music Style cards

The number of Music Styles (automatic accompaniments) of your E-68 can be expanded by using optional TN-SC2 Music Style cards.

Precautions

In addition to the items listed under Safety Precautions inside the front cover, please read and observe the following:

Power Supply

- Only use the supplied ACJ adapter. The use of other adapters may damage your E-68 and void the warranty.
- Before connecting the E-68 to other devices, turn off the power to all units; this will help prevent damage or malfunction.
- Do not use the E-68 on the same power circuit with any device that will generate line noise; an electric motor or variable lighting system for example.

Placement

- Using the E-68 near power amplifiers (or other equipment containing large power transformers) may induce hum.
- The E-68 may interfere with radio and television reception. Do not use it in the vicinity of such receivers.
- Do not expose the E-68 to temperature extremes or install it near devices that radiate heat. Direct sunlight in an enclosed vehicle can deform or discolor the E-68.

Maintenance

- For everyday cleaning wipe the E-68 with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- Never use benzene, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Additional precautions

- Protect the E-68 from strong impact.
- Never strike or apply strong pressure to the display.

- Before using the E-68 in a foreign country, consult with qualified service personnel.
- A small amount of noise may be heard from the display during normal operation.

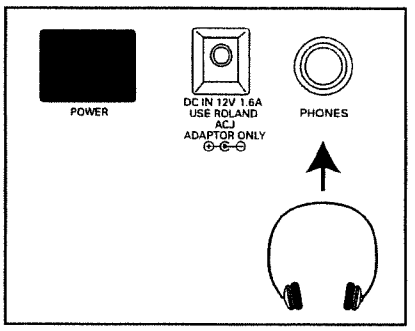
Memory backup

- The E-68 contains a battery which powers the unit's memory circuits while the main (AC) power is off. The expected life of this battery is 5 years or more. However, to avoid the untimely loss of memory data, it is strongly recommended that you change the battery every 5 years. Please be aware that the actual life of the battery will depend upon the physical environment –especially the temperature– in which the unit is used. When it is time to change the battery, consult with qualified service personnel.
- Please be aware that the contents of memory may at times be lost; when the E-68 is sent for repairs or when by some chance a malfunction has occurred. Important data should be saved to disk. During repairs, due care is taken to avoid the loss of data. However, in certain cases (such as when circuitry related to memory itself is out of order), we regret that it may not be possible to restore the data.

Contents

Setting up

In fact, all you need to do is unpack your E-68, connect its adapter to a wall socket, and you are ready to play. Please think of your neighbors, friends, and family, however, and do use headphones if you wish to play late at night or early in the morning. Connect your headphones (8~150Ω) to the PHONES connector on the rear panel. That will disable the E-68's speakers system.



Demo songs

The E-68 is shipped with 8 Tone demonstration songs and 8 Style demos to give you an accurate impression of the sounds and versatility of your instrument. Here is how to listen to the demo songs:

(1) Switch on your E-68 by pressing the [POWER] button on the rear of the instrument.

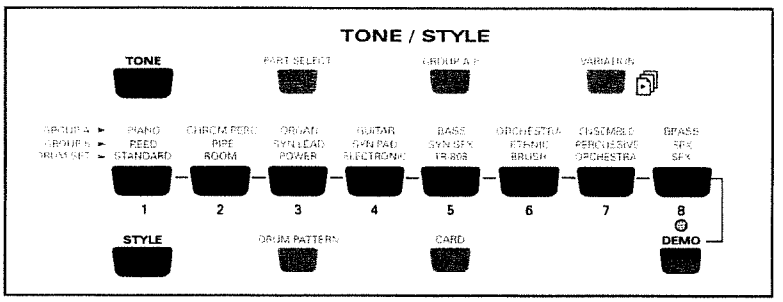
(2) Press the [DEMO] button (indicator lights).

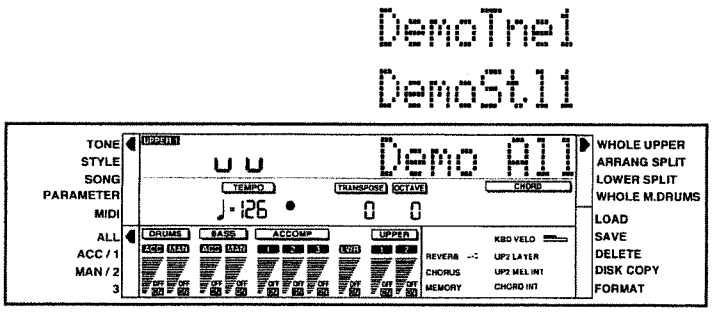
***Note**: Pressing the [DEMO] button while the Recorder or Arranger is recording/playing back will not call up the Demo mode. You must stop playback or recording before pressing [DEMO].*

(3) There are now three possibilities:

- You can listen to all Tone and Style demo songs (Demo All). To do so, skip to step (5).
- You could listen to a *Tone* demo song. To do so, press the [TONE] button.
- You could listen to a *Style* demo song. Press the [STYLE] button.

(4) If there is a specific demo song you wish to listen to, first select the Tone or Style mode (see above) and then press a number button in the TONE/STYLE section to select the desired song.





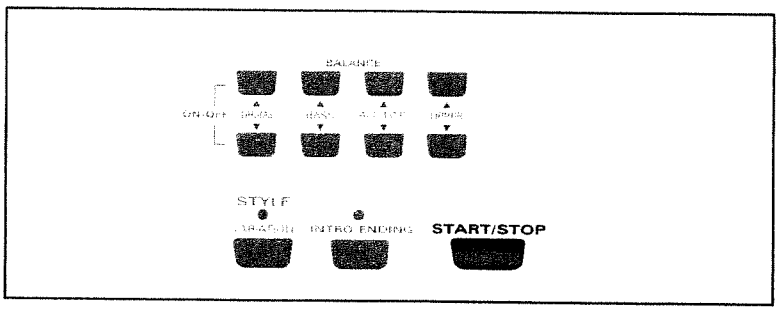
(5) Press [START/STOP] to start playback.

The demo song you selected will be played back, after which playback will stop. Go back to step (4) if you want to listen to another demo song of the level (Tone or Style) you selected, or to step (3) to change levels.

(6) You can press [START/STOP] again to stop playback.

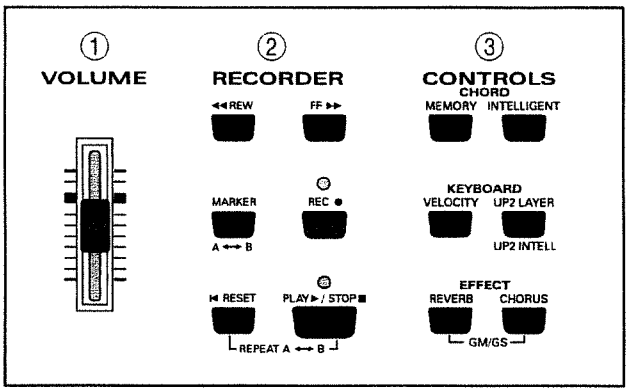
Don't press [START/STOP] just yet. Leave the demo performance running while you turn to the next chapter.

***Note**: The demo songs are for private listening only. Unauthorized copying, public performance or broadcasting of these demo songs are prohibited.*



Panel Descriptions

Front panel



(1) VOLUME slider

This slider controls the master volume of your E-68, i.e. the volume of speakers, the signals present at the STEREO OUTPUT R, L/MONO jacks and the PHONES jack.

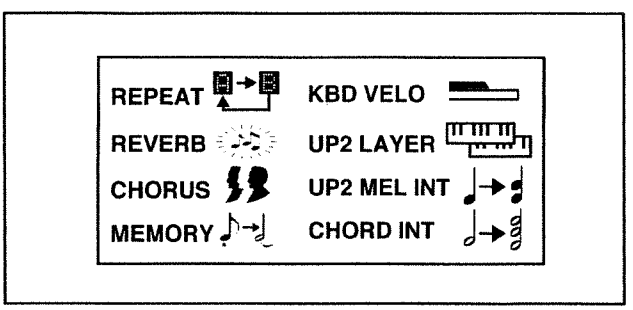
(2) RECORDER section

The buttons of this section allow you to operate the on-board Recorder. See "Recorder (GM/GS mode)" on page 110.

(3) CONTROLS section

The following buttons have no indicators. By watching the lower right-hand corner of the display, however, you can confirm their status: no symbol means that the function is off. ('Memory' refers to the CHORD MEMORY function.)

The buttons in the CONTROLS section are used for controlling three kinds of functions:



CHORD MEMORY & INTELLIGENT

These are Arranger functions. Press [CHORD MEMORY] if you want the Arranger (automatic accompaniment) to go on sounding the last chord you played whenever you release the keys in question (which may be necessary to select another Style etc.).

Press [CHORD INTELLIGENT] to activate the function of the same name. *Chord Intelligence* means that you do not need to play all notes that make up a given chord.

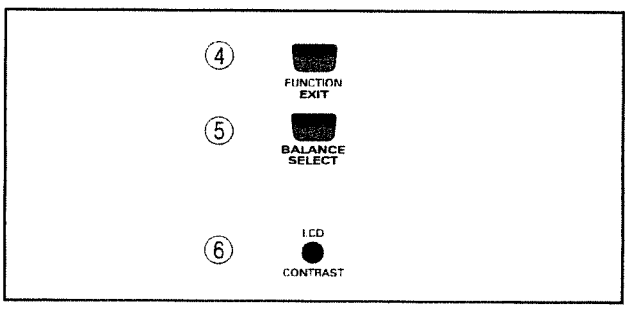
KEYBOARD VELOCITY & UPP2 LAYER/INTELL

These are Realtime part functions. Press

[KEYBOARD VELOCITY] to switch on (or off) the E-68's velocity sensitivity. The [UP2] button allows you to add a second sound to the melody you play with your right hand (Upper1 part), which is called *Layering*. Pressing this button again will assign the Upper2 part to the Arranger, in which case the E-68 adds a second voice to your melody (Melody Intelligence).

EFFECT REVERB/CHORUS buttons

These two buttons allow you to activate or switch off the corresponding digital effect. By pressing them together, you select or leave the GM/GS mode.



(4) FUNCTION/EXIT button

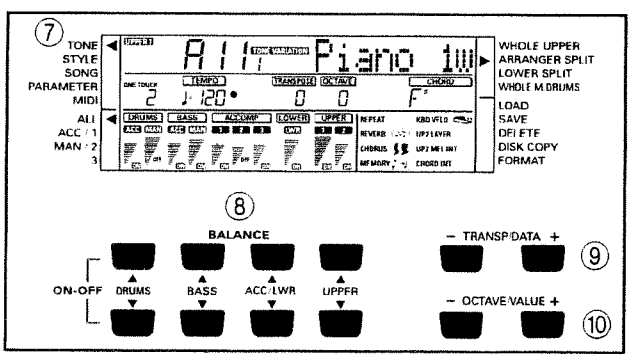
Press this button to select one of the five modes (Tone, Style, Song, Parameter, or MIDI). This button also allows you to leave the Disk mode after performing saving/loading/formatting. In that case, the display returns to the mode you selected before pressing [DISK].

(5) BALANCE SELECT button

This button should be used in conjunction with the BALANCE buttons (see below) to select the Part whose volume (or balance) setting you wish to change.

(6) LCD CONTRAST knob

Use this knob to adjust the contrast if you are having problems reading the display.



(7) Display

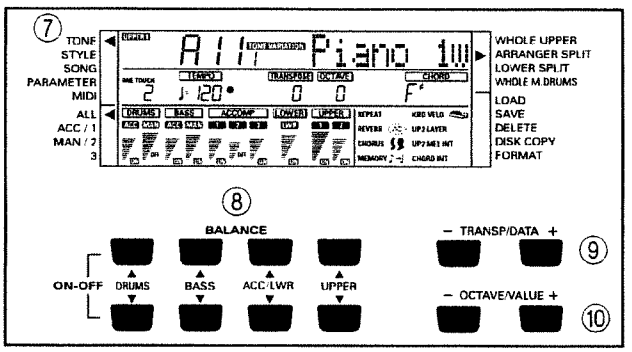
This new display should be a great help for you. Our Roland engineers really went out of their way to come with a display that was both clear and a pleasure to look at.

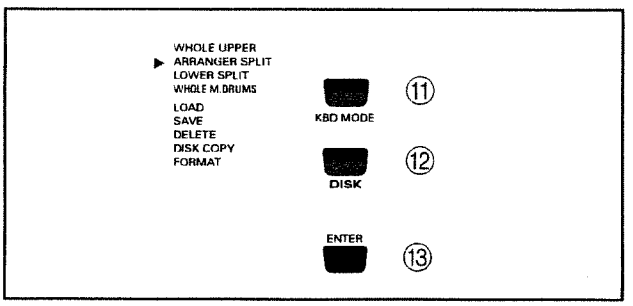
(8) BALANCE buttons

The BALANCE buttons are used to set the volume of the E-68's parts. As there are more parts than there are BALANCE buttons, you may sometimes have to press the BALANCE SELECT button to activate only those parts whose volume you really want to change.

(9) TRANSP/DATA buttons
Use these buttons whenever you want to sound in different key than the one you are playing in (see page 62). Furthermore, these buttons allow you to select Parameters.

(10) OCTAVE/VALUE buttons
The OCTAVE/VALUE buttons allow you to transpose the Realtime parts (except the M.Drums part) in octave steps. You also need them to set the value of the parameter selected with the TRANSP/DATA buttons.



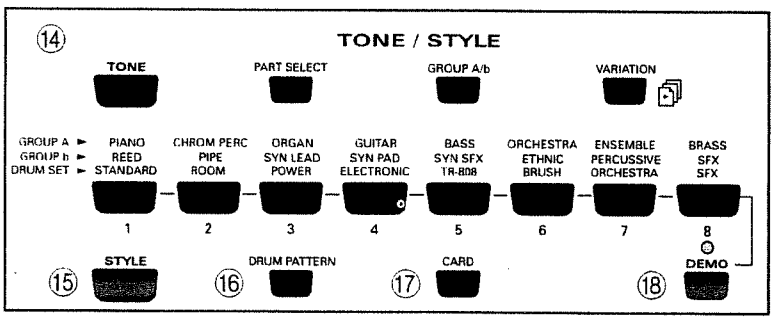


(11) KBD MODE button
Use this button to select one of the E-68's four Keyboard Modes. For your reference, the illustration also contains the names of these modes (Arrang Split is currently selected).

(12) DISK button
Press this button to select one of the Disk functions. Again, there's no need to memorize them as they appear on the display (see illustration).

(13) ENTER button
Press this button to confirm a question displayed in Disk mode (Sure? for example).

(14) TONE/STYLE buttons
The TONE/STYLE buttons are used to select Tones (i.e. sounds) and Variations (i.e. alternative sounds) for the Realtime parts, as well as Music Styles (i.e. automatic accompaniments). Please bear in mind that the [GROUP A/b] only works for Tone selection. There is indeed only one Music Style group, while the E-68 comes loaded with two Tone groups.



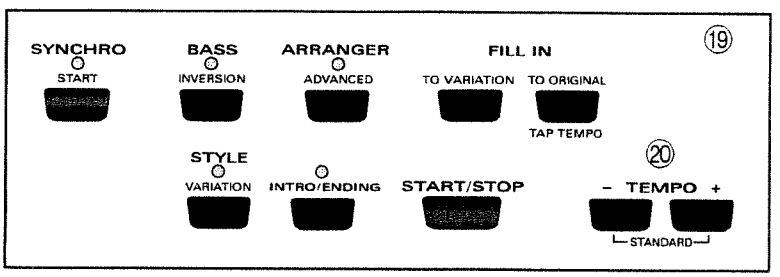
(15) STYLE button
Press this button if you wish to use the TONE/STYLE keypad for selecting another Music Style.

(16) DRUM PATTERN
For every Music Style, there are four possible drum accompaniments with different degrees of complexity. Press this button to select the Drum Pattern you need for the song you are about to play.

(17) CARD button
Press this button to gain access to the Music Styles on the TN-SC2 card (option) you inserted into the STYLE CARD slot.

(18) DEMO button
Press this button whenever you feel like listening to the E-68's Tone and Style demo songs.

(19) Arranger Control section
These buttons are used to select Music Style patterns (Intro, Ending, Fill-Ins etc.). See "Music Style functions" on page 80. Since all Music Style functions can be selected in realtime, these buttons are conveniently located above the keyboard.



(20) TEMPO buttons
Use the TEMPO buttons to set the Arranger or Recorder playback tempo.

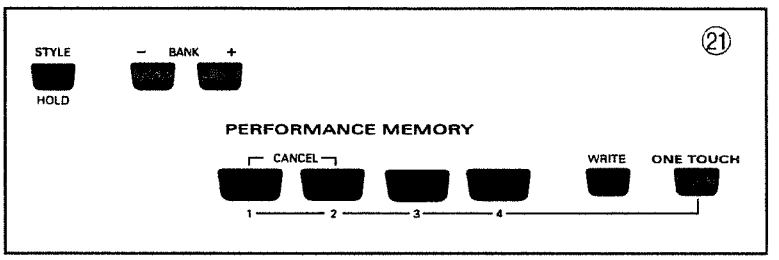
(21) PERFORMANCE MEMORY(/One Touch) section

These buttons allow you to select Performance Memories (formerly known as User Programs).

The number buttons are used to select one of the 4 Performance Memory *numbers* ([1]~[4]), while the BANK [+] [–] buttons are used to select the Group (A or b) and the bank (1~8). See "Writing and loading registrations – Performance Memories" on page 98.

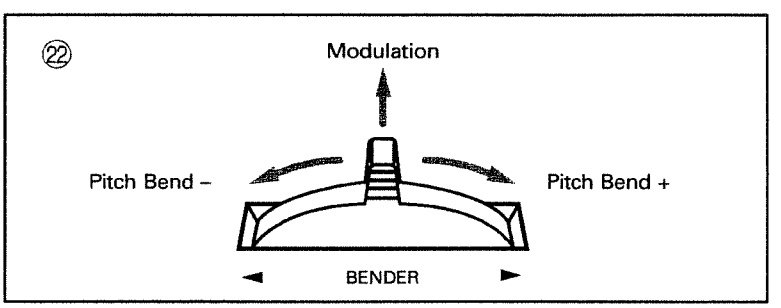
Performance Memories contain all settings you can make on the front panel (Keyboard Mode, Arranger setting, Style selection, tempo etc.) and in the Parameter mode.

The [ONE TOUCH] button (when pressed with one of the PERFORMANCE MEMORY number buttons) provides access to automatic registrations (optimal sounds for the Upper1 and 2 parts as well as for the effects) for *every* Music Style.



(22) Bender/Modulation lever

Use this lever to bend the notes of the Realtime part you are playing or to add some vibrato. See "Pitch Bend and Modulation" on page 60.



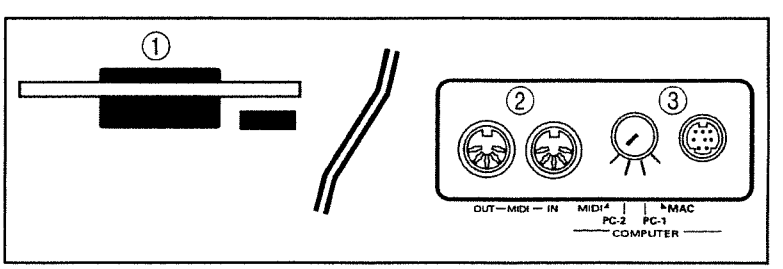
Rear panel

(1) Disk drive

The disk drive is used to save or load Songs and Performance Memories. You may use 2DD or 2HD disks.

(2) MIDI OUT and IN connectors

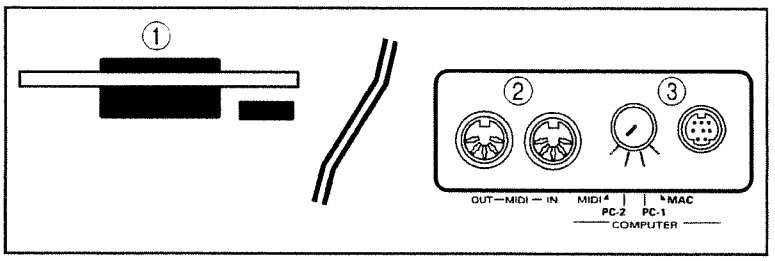
These connectors allow you to use your E-68 along with other



MIDI instruments. See "MIDI" on page 164.

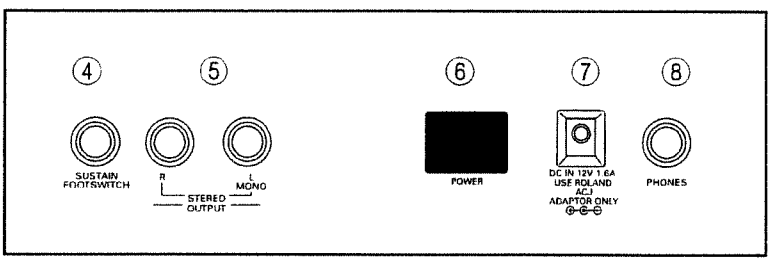
(3) COMPUTER selector knob and connector

The COMPUTER connector effectively duplicates the MIDI IN and OUT jacks, while providing the additional advantage that you do not need a MIDI interface to connect your E-68 to your Mac or IBM-PC (compatible). The selector knob is used for setting the interface (PC-1/2= RS-232C, Mac= RS-422) and (in the case of a PC) computer type.



(4) SUSTAIN FOOTSWITCH connector

Connect an optional DP-2 or DP-6 to this jack to sustain the notes of the Realtime section you are playing after releasing the key(s) you pressed.



(5) STEREO OUTPUT R, L/MONO jacks

Connect these jacks to the inputs of your stereo amplifier or mixer. If you wish to use your E-68 in mono, only connect the L/MONO jack. Connecting jack plugs here does not switch off the E-68's internal amplification.

(6) POWER switch

Press this switch to power on your E-68. Press it a second time to power off your E-68.

(7) DC IN12V

This is where you need to connect the supplied adaptor's small plug. As specified, use only a Roland ACJ adaptor. The use of other adaptors may damage your E-68.

(8) PHONES jack

This is where you can connect a pair of stereo headphones that

carries the same signal as the one sent to the STEREO OUTPUT R, L/MONO jacks. Connecting a pair of headphones to the PHONES jack turns off the internal amplification.

(9) STYLE CARD slot
This is where you can connect optional TN-SC2 Music Style cards to expand the number of accompaniments. Each TN-SC2 Style card contains eight brand new Music Styles. See your Roland dealer for details.

User interface

Your E-68 has been designed with musicians (i.e. you) in mind. That is why it provides a new kind of graphic display that contains a lot of information, allowing you to quickly check whether all your panel settings are correct.

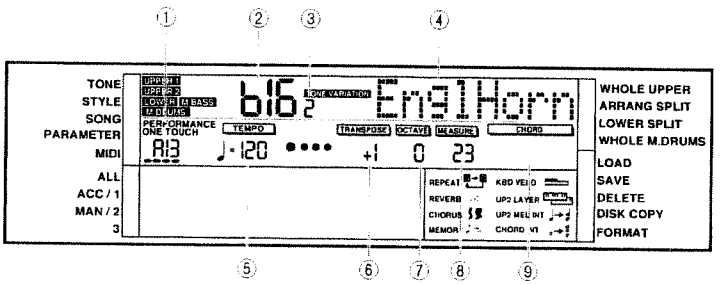
While older Roland instruments required that you checked both the information on the display and the status of quite a few button indicators, all information can now be found in one place. Furthermore, most settings are indicated by means of intuitive icons and symbols, which should allow you to work comfortably and to concentrate on your music.

Information to be found in the display

The E-68's display comprises several sections, most of which reflect the status of various buttons you may (or may not) have pressed, while others indicate the value set for a particular function.

Note: If a particular icon is not displayed, that usually means that the corresponding function is either switched off or irrelevant.

Though the icons and symbols on the display are equally important, we shall not discuss them here. They will be explained along with the function(s) they are assigned to.



(1) Performance Memory/One Touch memory

This is where the number of the selected Performance Memory appears. Only one of these can be active at any one time.

(2) Tone/Style/Part number

Depending on the mode you are in (Standard E-68 mode or GM/S mode), this field displays the number of the Tone, Style, or Part. The Tone whose number and

name are displayed is assigned to the Realtime Part (see upper left-hand corner) whose name is displayed. In Parameter mode (see page 148), this field indicates the value for the selected parameter (see (4)).

(3) Variation/Drum Pattern/decimal field

This field indicates the number of the Tone Variation or Drum Pattern you selected. (Watch the DRUM PATTERN or TONE VARIATION message that appears above this figure.) In Parameter mode, the value in this field (if available) refers to the decimal position. This is used for the Master Tune parameter, for example.

(4) Tone/Style/Part/function name

This field displays the name of the Tone, Style, Recorder Part or Parameter function you selected.

(5) Tempo field

This field display the tempo that will be used for Style or Recorder playback. The dots next to the tempo value blink at the speed (tempo) indicated by the tempo value. When playback of a Style, Recorder, or demo song is stopped, only the first dot blinks.

(6) Transpose field

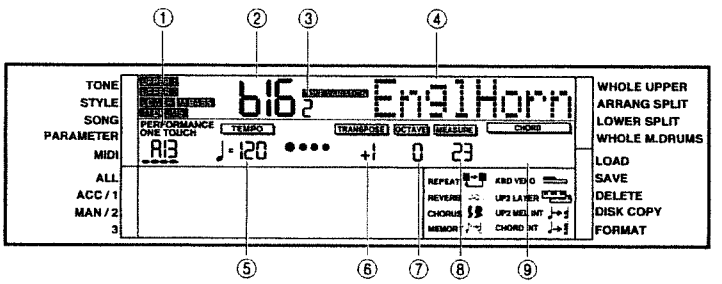
This field displays the Transpose interval you set. Only the Realtime parts (with the exception of the Manual Drums part) can be transposed.

(7) Octave field

This field displays the octave shift amount set for the Realtime part whose name appears in the upper left-hand corner (Upper1, Upper2, Lower, or M.Bass; the M.Drums part cannot be shifted).

(8) Measure field

This field is only displayed in GM/GS mode, i.e. when you use



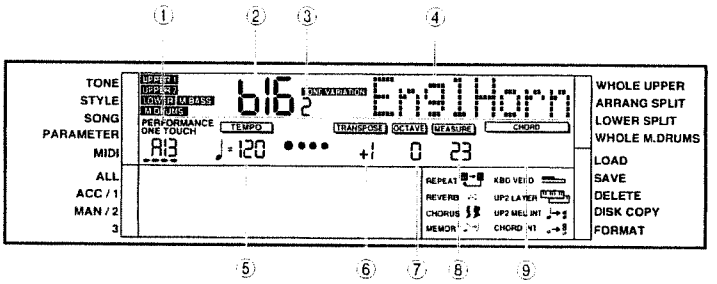
the E-68's Recorder of when you use the E-68 as "MIDI module" for an external sequencer. It indicates the number of the measure that is currently being played back.

(9) Chord Symbol window

This window indicates the name of the last chord you played to the left of the Split point (in ARRANG SPLIT or LOWER SPLIT mode). The information displayed here may be helpful for the guitarist of your band or for you to find out more about the chords you may at times play accidentally.

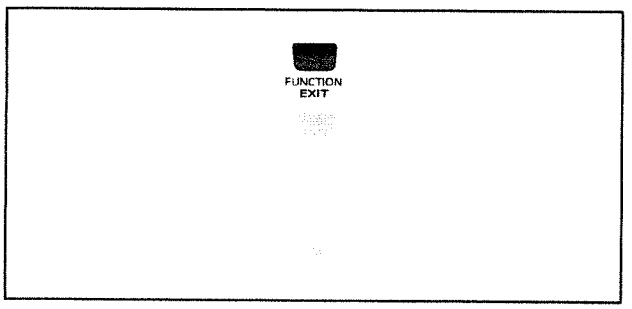
Tip: This display can be invaluable when you start improvising and then find the changes you played were so nice that you would like to turn them into a song.

***Note**: Please remember that not all values/fields may be visible at all times.*



Function/Exit

Pressing the [FUNCTION/EXIT] button once or several times sometimes allows you to toggle between the different setting modes (Tone, Style, Song, Parameter, and MIDI).



Realtime parts

What are Parts?

Your E-68 is a multitimbral instrument, which means that it can play several sounds simultaneously. There are two main sections:

(1) Realtime section

The Realtime section encompasses the parts you yourself can play. A part is the "voice", such as the melody, the solo, etc. you play. The following Realtime parts are available on your E-68:

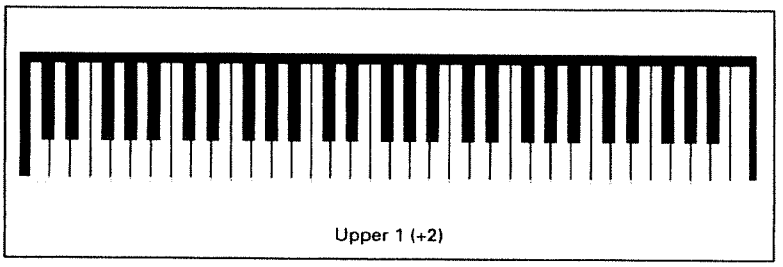
Upper1: Though there are only slight differences between Upper1 and Upper2, Upper1 is usually the main solo part. In other words, select this part to play the melody or solo line.

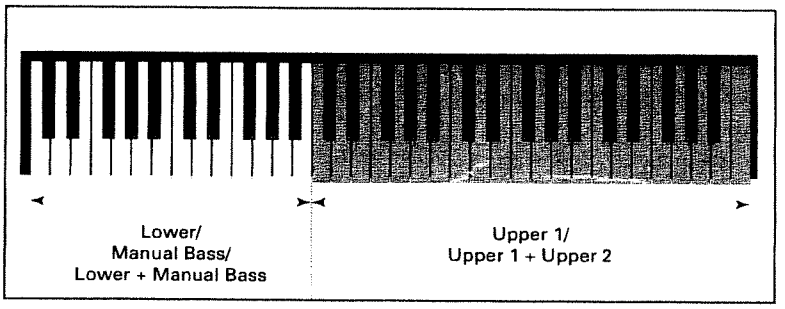
Upper2: Upper2 can be used as additional sound to be layered with the Upper1 part. Furthermore, it can be triggered by the Arranger to play an automatic counter-melody (a function called Melody Intelligence).

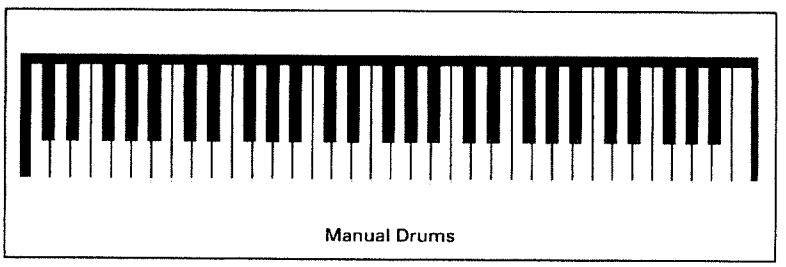
Lower: The Lower part allows you to play chords with your left hand. Use it whenever you want to add an accompaniment such as strings to your right-hand melody. It goes without saying that you only need to select the Lower part when you want to play the chords with another sound than the one you chose for the Upper part(s).

Manual Bass: The Manual Bass (or M. Bass) part is used to play bass lines. Select this part whenever you want to play the bass accompaniment yourself.

Manual Drums: The Manual Drums (or M.Drums) part is somewhat different from the other Realtime parts in that you can only select Drum Sets for this part. Select this part whenever you feel like drumming on the keyboard.





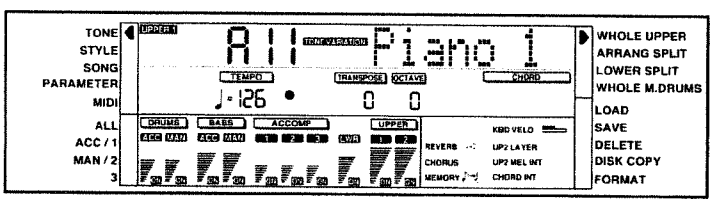


Your E-68 can assign different sounds (or Tones) to each of these parts. Note, however, that you can only assign Drum Sets to the M.Drums part, and that it is impossible to assign Drum Sets to the other Realtime parts (Upper1, Upper2, Lower, M. Bass).

(2) Arranger section
The Arranger section (see page 70 for full details), on the other hand, encompasses all parts that will be played by the E-68.

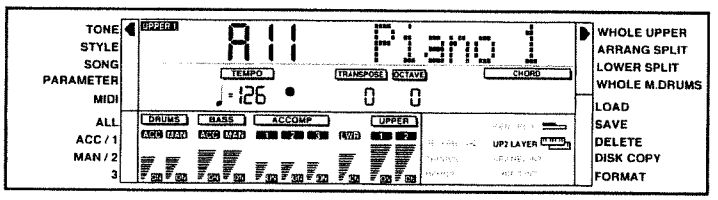
Selecting Realtime parts for playing

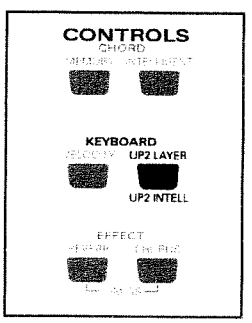
When you power on your E-68 the Upper1 part is automatically selected and assigned to the entire keyboard. The Tone assigned to Upper1 is called A11 Piano 1.
The UPPER 1 field appears in the upper left-hand corner of the display, while an arrow appears next to the WHOLE UPPER message on the right-hand side.
You can now switch off the Upper1 part by simultaneously pressing the Balance UPPER ▲▼ buttons. Doing so, however, will leave you with no sound.



Layering Upper2

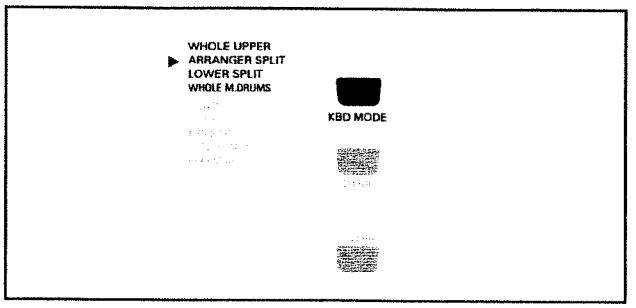
Let's select the Upper2 part now:
Press Keyboard [UP2 LAYER] to activate the Upper2 Part.
Notice the Layer icon that appears next to the UP2 LAYER message.





Playing the Lower, M.Bass, and M.Drums parts

The [KBD MODE] button allows you to choose which Realtime Parts are available for playing. For example: to use the Lower and/or M.Bass parts, you must select the Lower Split mode.

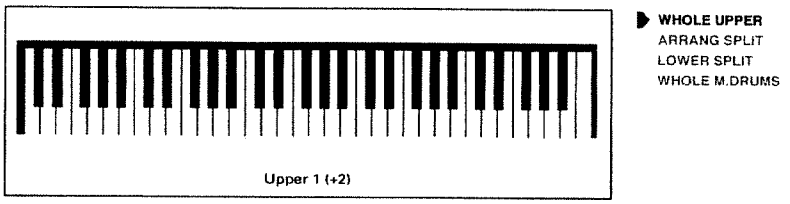


Keyboard Mode

(1) Whole Upper

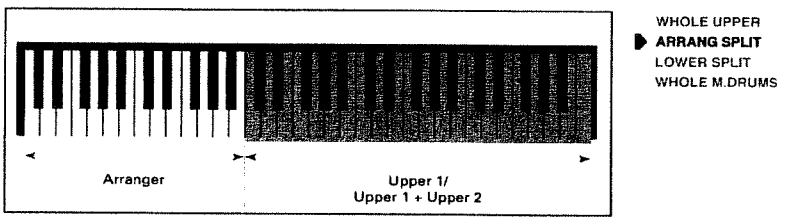
When you press the [KBD MODE] button to place the display arrow next to the WHOLE UPPER message, you can play the Upper1 and Upper2 parts on the entire keyboard.

You can use the Arranger's drum and percussion accompaniments (ACC DRUMS) in this mode by pressing the [START/STOP] button, so that the Arranger effectively functions as rhythm box.



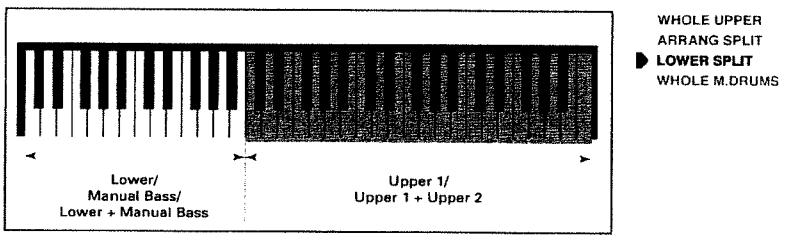
(2) Arrang Split

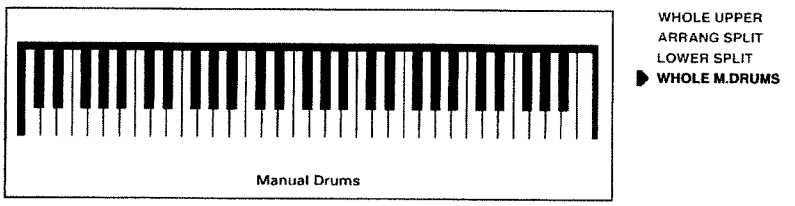
ARRANG SPLIT means that the E-68's keyboard is split in two halves: the keys to the right of the split point allow you to play the Upper1 (and Upper2) part, while you can trigger the Arranger (see "Playing with accompaniment – Arranger" on page 70 for details) with your left hand.



(3) Lower Split

Select this mode when you wish to play the melody with your right hand, while adding your own chord accompaniment and/or a bass line using other sounds than the one assigned to the Upper1 part.





You can use the Arranger's drum and percussion accompaniments (ACC DRUMS) in this mode by pressing the [START/STOP] button, so that the Arranger effectively functions as rhythm box.
You can use the SYNCHRO [START] (see page 80), DRUM PATTERN [1]~[4] (see page 90), UP2 Intelligent (see page 94) and Chord Memory (see page 78) functions in Lower Split mode.

***Note**: The Manual Bass part is monophonic and usually plays the root note of the chord you play. You could, however press the [BASS INVERSION] button so that the Manual Bass part plays the lowest note of your chords.*

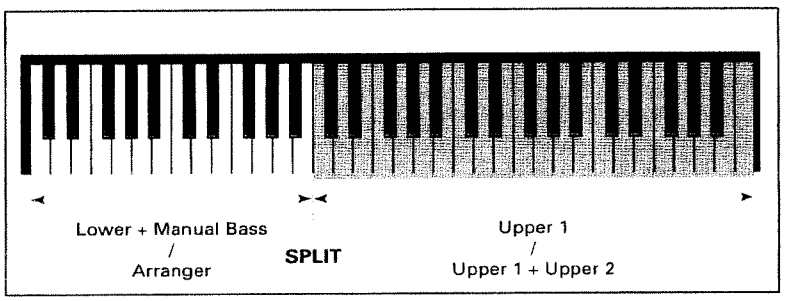
(4) Whole M.Drums
In WHOLE M.DRUMS mode, all keys of your E-68 are assigned to different drum and percussion sounds. Select this Keyboard Mode when you feel like drumming to a Recorder song.

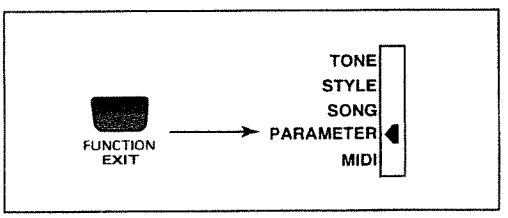
Split points

You may remember the two "Split" modes (Arrang Split and Lower Split). Here is what they mean:
There are two split points you can set: ArrSplit and LwrSplit, i.e. one for the Arranger Split and a second for the Lower Split mode. Here is how to set the desired split point:

(1) Press the [FUNCTION/EXIT] button to select the Parameter mode.

(2) Press TRANSP/DATA [+]/[–] to select ArrSplit or LwrSplit.
The relevant windows in the display now look like in the illustration on the following page.





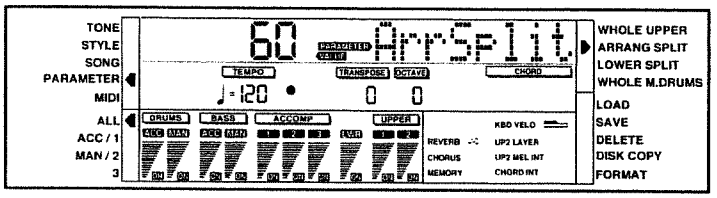
(3) Use the OCTAVE/VALUE [+]/[–] buttons to set the value.

The settable range is 48 (C3)~84 (C), the default value being 60 (C4).

You could now select LwrSplit by pressing TRANSPOSE/DATA [+] once more and set the split point of the Lower Split mode with the OCTAVE/VALUE [+]/[–] buttons.

(4) Press [FUNCTION/EXIT] as many time as necessary to return to the Tone mode (indicated by a ◀ symbol).

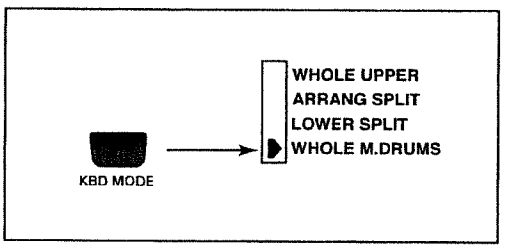
Note: *If you are satisfied with your split points, you should save them to a Performance Memory (see page 98).*

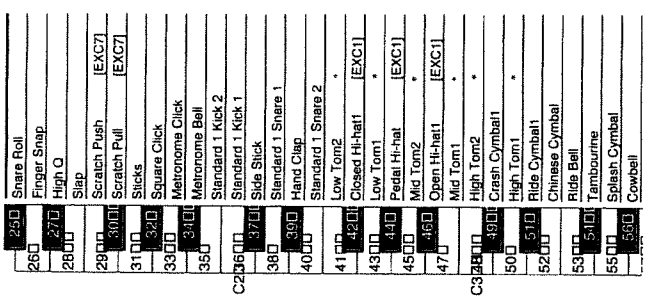


Selecting the Manual Drums part

Press the [KBD MODE] button to select the WHOLE M.DRUMS mode in order to assign a series of drum and percussion sounds (called *Drum Set*) to the entire keyboard, thereby overriding any Keyboard Mode setting you may have made beforehand. In other words, whenever you select the WHOLE M.DRUMS mode, the other Realtime parts (Upper1, Upper2, Lower, and M.Bass) and Arranger control are no longer available.

The M.Drums part differs from the other Realtime parts in that it assigns different sounds to every key. If you press the C2 (leftmost C), you trigger a bass drum sound. Press the D2 key (the D to the right of the C2) to trigger a snare drum sound, and so on. Consequently, you won't be able to play melodies in Whole M.Drums mode. See the illustration.





Selecting Tones for the Realtime parts

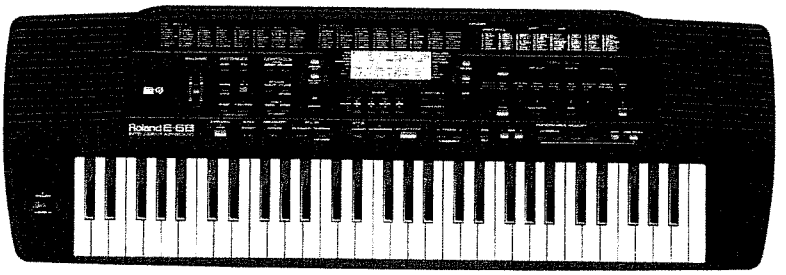
Your E-68 is shipped with 241 sounds, or Tones, to choose from. These Tones are divided in the following way:

Groups (A, b): The highest ranking unit. Each Group contains all of the following elements.

Banks (1~8): Banks are "instrument families" (such as Piano, Chromatic Percussion, Organ, Guitar, etc.). Each Bank contains the following elements.

Numbers (1~8): Numbers are instruments of a given family (i.e. Organ 1, Organ 2, etc. of the Organ bank).

Variations (1~...): Variations are usually other or related sounds of a given instrument (i.e. muted trumpet). Please note that Variations are only available for Tones marked with a "▶".



Selecting Tones

Here is how to select a Tone for a Realtime part:

(1) Press the [TONE] button.

By way of example, let us select Tone b32, Saw Wave, for the Upper1 part.

(2) Press [PART SELECT] to select the part you wish to assign a Tone to (select Upper1).

The name of that part appears in the upper left-hand corner of the display. To select another part, press [PART SELECT] again.

(3) Press the [GROUP A/b] button to select the A or b Group.

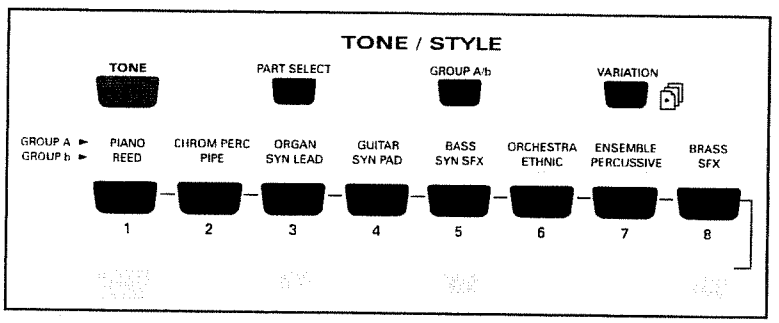
Note: As soon as you press the [GROUP A/b] button, the E-68 selects the Tone whose number corresponds to that of the previously selected Group. Example: if Tone A12 is currently selected, pressing [GROUP A/b] immediately selects Tone b12. It is therefore wiser not to select Tones while you are playing. If

TONE GROUP A

PIANO	CHR PERC	ORGAN	GUITAR	BASS	ORCHESTRA	ENSEMBLE	BRASS
11▶PIANO 1	21 CELESTA	31▶ORGAN 1	41▶NYLON	51 ACOUSTIC	61▶VIOLIN	71▶STRINGS	81▶TRUMPET
12▶PIANO 2	22 GLOCK	32▶ORGAN 2	42▶STEEL	52 FINGERED	62 VIOLA	72 SLOSTRING	82▶TROMBONE
13▶PIANO 3	23 MUSICBOX	33 ORGAN 3	43▶JAZZ	53 PICKED	63 CELLO	73▶SYNSTR 1	83 TUBA
14▶HONKY TONK	24▶VIBPHONE	34▶CHURCH 1	44▶CLEAN	54 FRETLESS	64 CONTRBAS	74 SYNSTR 2	84 MUTETRMP
15▶ELECTR 1	25▶MARIMBA	35 REED	45▶MUTED	55 SLAP 1	65 TREMOLO	75▶CHOIRAHS	85▶FRHORN
16▶ELECTR 2	26 XYLOPHONE	36▶ACCORDN	46 OVERDRIVE	56 SLAP 2	66 PIZZICATO	76 VOICEOHS	86▶SECTION
17▶HARPSICH	27▶TUBEBELL	37▶HARMON	47▶LEAD	57▶SYNTH 1	67 HARP	77 SYNVOX	87▶SYNTH 1
18 CLAV	28 SANTUR	38 BANDNEON	48▶HARMONIC	58▶SYNTH 2	68 TIMPANI	78 ORCHEHIT	88▶SYNTH 2

TONE GROUP b

REED	PIPE	SYN LEAD	SYN PAD	SYN SFX	ETHNIC	PERCUSSIVE	SFX
11 SOPRASAX	21 PICCOLO	31▶SQUARE	41 FANTASIA	51 ICE RAIN	61▶SITAR	71 TINKLBELL	81▶GUITNOISE
12▶ALTOSAX	22 FLUTE	32▶SAW	42 WARMPAD	52 SND TRACK	62 BANJO	72 AGOGO	82▶BRETNOISE
13▶TENORSAX	23 RECORDER	33 CALLIOPE	43 POLYSYNT	53▶CRYSTAL	63 SHAMISEN	73 STEELDRM	83▶SEASHORE
14 BARITSAX	24 PANFLUTE	34 CHIFFER	44 SPACEVOX	54 ATMSPHER	64▶KOTO	74▶WOODBLCK	84▶BIRDS
15 OBOE	25 BOTTLBLOW	35 CHARANG	45 BOWGLASS	55 BRIGHTNS	65 KALIMBA	75▶TAIKO	85▶TELEPHON
16 ENGLHORN	26 SHAKU	36 SOLOVOX	46 METALPAD	56 GOBLIN	66 BAG PIPE	76▶MELODTOM	86▶HELICOPT
17 BASSOON	27 WHISTLE	37 5 TH SAW	47 HALOPAD	57▶ECHODROP	67 FIDDLE	77▶SYNDRUM	87▶APPLAUSE
18 CLARINET	28 OCARINA	38 BASSLEAD	48 SWEEPPAD	58 STARTHEM	68 SHANAI	78 REVCYMBL	88▶GUNSHOT



the song you want to play requires that you select a new Tone at some stage, however, write your panel settings to a Performance Memory (see page 104) and select that memory instead.

(4) Press a number button to select a bank (press [3])

(5) Press another (or the same) number button to select a memory within that bank (press [2]).

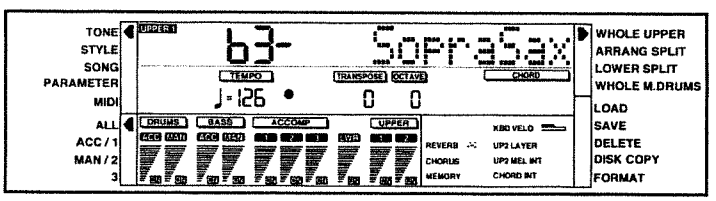
Note: You are free to select whichever Tone you like for the Realtime parts (Upper1, Upper2, and Lower). That is also true of the M.Bass sound. Remember, however, that the M.Bass part is monophonic.

Note: To select another Bank within the same group, press a number and another (or the same) number to select a Tone within that bank. Selecting the Group is only necessary if the new Tone resides in another Group.

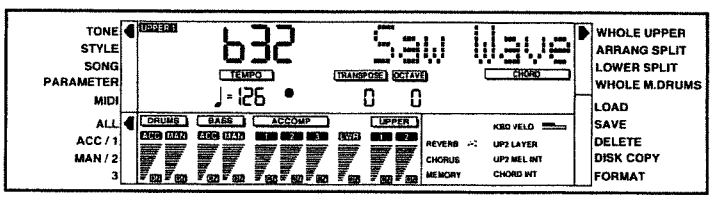
Default Tones/Drum Set in Arranger (E-68) mode:

Upper 1:	A11 Piano 1
Upper 2:	A15 Detune EP1
Lower:	A72 Slow Strings
MDR:	1 Standard

Bank



Number



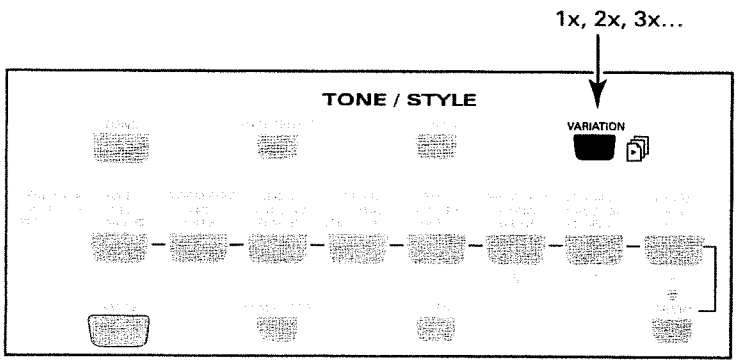
Selecting a Variation

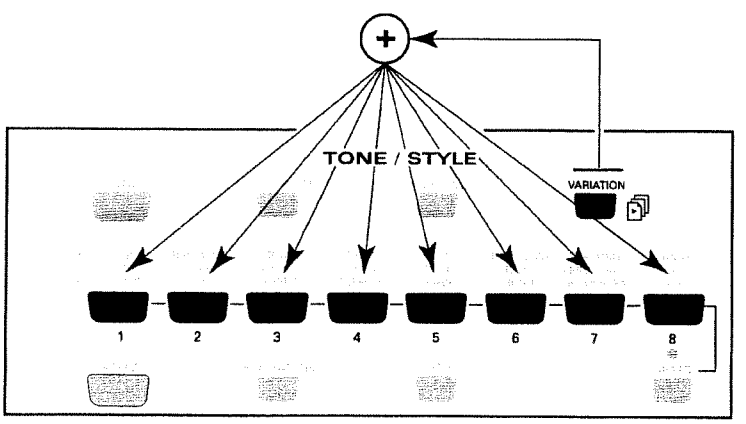
Your E-68 also provides a certain number of alternatives for the Tones you select. These alternatives are called *Variations* and are available for Tones preceded by a ► symbol in the Tone list above the display. It is probably a good idea to check what we mean, so let us select a Variation for the Saw Tone (b32):

(1) If you're not sure which Variation to select

Press the [VARIATION] button to select the first Variation. Press it again to select the next one, and so on.

The TONE VARIATION field appears in the display, as does a small figure. That figure refers to the Variation you selected.





(2) If you know exactly which Variation you need

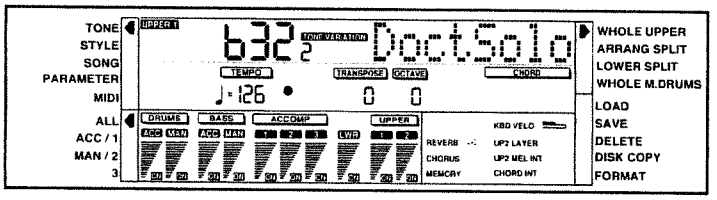
Hold down [VARIATION] while you press the TONE/STYLE number button that is assigned to the Variation you need.

(3) To return to the Capital (i.e. main) Tone, hold down [VARIATION] while you press the number button of the Variation that is currently selected.

Note: See the end of this manual for a list of all 241 sounds and Drum Sets.

Note: The number of Variations per Tone varies. There may be as many as 8 Variations per Tone, while in other instances, there will only be 1 or even none.

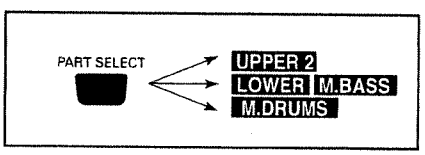
Note: Tone and Variation selection for the Realtime parts can be saved to a Performance Memory. That has the advantage that you only need to select the corresponding Performance memory to recall the desired sounds as well as countless other parameter settings.



Tone selection for other Parts

To select Tones for the other Realtime parts (Upper2, Lower, M.Bass), first press the [PART SELECT] button and then go back to step (3) on page 54. If you do not hear the desired part when you play on the keyboard, see "Selecting Realtime parts for playing" on page 46.

Note: See "Effects" on page 146 for how to apply effects to the selected Tones.



Selecting Drum Sets for the M.Drums Part

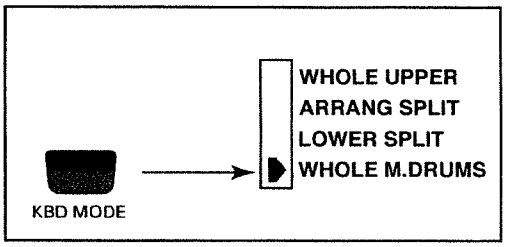
Here is how to select Drum Sets for the M.Drums part:

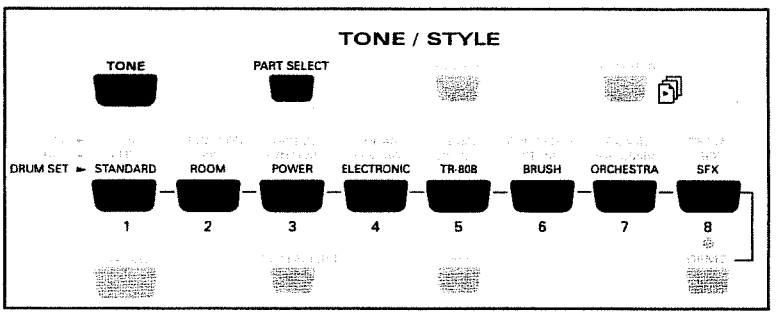
(1) **Press the [KBD MODE] button to assign the M.Drums part to the keyboard.**

(2) **Press [PART SELECT] to select the M.Drums part for editing.**

(3) **Press a number button to select a Drum Set.**

Note: Tone and Drum Set selection (along with a lot of other settings) can be saved to a Performance Memory. After assigning other Tones to the Realtime parts you should save these settings to a Performance Memory (see page 98).





Realtime Performance functions

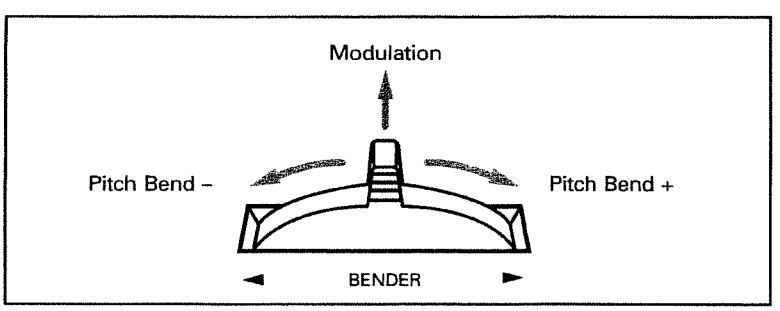
Your E-68 also provides performance controllers and functions to add expression to what you are playing.

Pitch Bend and Modulation

Turn the BENDER/MODULATION lever towards the right to bend the notes you are playing upwards, or to the left to lower the pitch. Release the lever to return to the standard pitch.

Push the lever away from you to add vibrato to the notes you are playing. Release the lever to remove the vibrato.

Note: The Pitch Bend Range (i.e. the interval obtained when you turn the lever fully to the left or right) is currently set to 2 semitones. See "PB Range (Pitch Bend Range)" on page 152 for how to change the Pitch Bend Range.



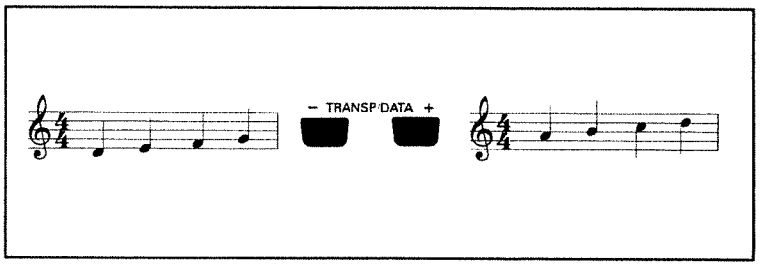
Note: Except in WHOLE M.DRUMS mode, Pitch Bend, Modulation, and Sustain messages only apply to the Upper1 and Upper2 (if active) parts. In WHOLE M.DRUMS mode, only the Manual Drums part is affected by these messages.

Transpose and Octave Up/Down

Transpose (-11~11)

If you are used to playing a song in a particular key, the Transpose function will help you to go on playing in that key while sounding in another one. That way, you can accompany a singer or instrument that prefers to sing or play in another key than the one you are used to playing that particular song in.

Note: Transposition applies to all parts except the M.Drums and A.Drums parts.

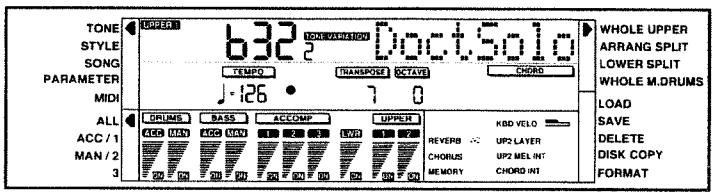


(1) Press TRANSP/DATA [+] to transpose the keyboard up.

(2) Press TRANSP/DATA [–] to lower the pitch.

Each press corresponds to one semitone. To transpose to the key of G, press TRANSP/DATA [+] seven times (or TRANSPOSE/DATA [–] five times).

The Transpose interval you set is indicated in the display.



(3) To cancel the Transpose setting, press TRANSP/DATA [+]/[–] simultaneously.

Note: The E-68 also provides a parameter that allows you to decide which sections are transposed. See "TrpMode (Transpose Mode)" on page 152 for details.

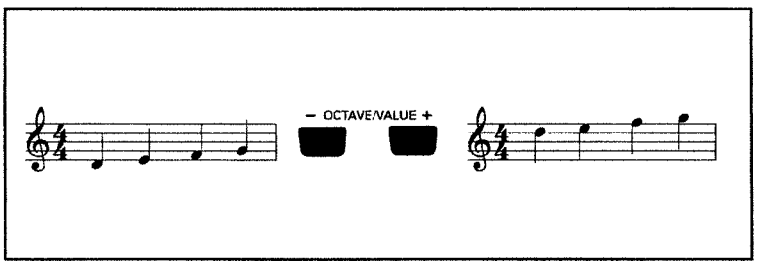
Note: The M.Drums and A.Drums parts are never transposed because it makes no sense. After all, every key of the MDR/ADR part is assigned to a different percussion sound and transposing it would mean that you would have to press other keys to trigger the sounds you need.

Tip: This setting can be saved to a Performance Memory. See page 98 for details.

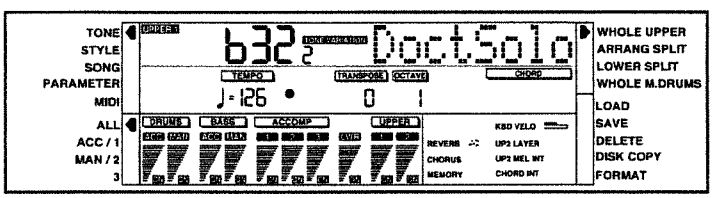
Octave Up/Down (-1~1)

The OCTAVE/VALUE [+]/[–] buttons allow you to transpose the Realtime parts one octave up or down. Before being able to apply a positive (+) or negative (–) octave shift to a Realtime part, you have to select it using the [PART SELECT] button. The name of the part you can shift in octave steps must appear in the upper left-hand corner of the display.

To transpose the Lower part one octave down, for example, first press PART SELECT (the LOWER field is displayed) and then OCTAVE/VALUE [–].



After doing so, you can press the [PART SELECT] button again to apply the same or a different octave shift to another Realtime part. In other words: the selected octave will be maintained even if you select another Realtime part.



(1) Press the [PART SELECT] button to select the Realtime part to be octave shifted.

(2) Use the OCTAVE/VALUE [+]/[–] buttons to specify the number of octaves that part is to be shifted up (+) or down (–).

***Note**: The M.Drums part cannot be shifted.*

(3) To cancel the Octave Shift setting for a part, press OCTAVE/VALUE [+]/[–] simultaneously.

***Note**: The selected Octave shift value remains in effect when you assign another Tone to a given Realtime part. If you do not wish to apply the same shift to the new Tone, you must turn off Octave Shift.*

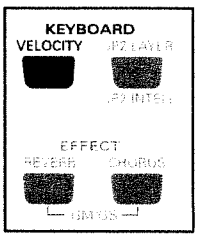
Tip: This setting can be saved to a Performance Memory. See page 98 for details.

Keyboard Velocity

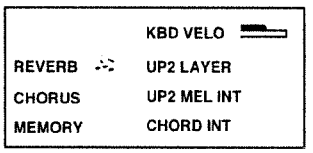
At power on, the keyboard of your E-68 is velocity sensitive. Play a few notes, taking care to vary the force with which you strike the keys, to see (or rather: hear) what we mean.

Sometimes, however, such as when you play an organ solo, it may be preferable to switch off the E-68's velocity sensitivity. In that case, press Keyboard [VELOCITY].

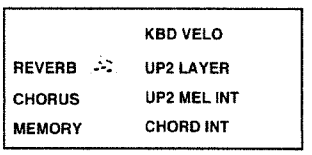
The KBD VELO icon in the lower right-hand corner now disappears to indicate that all notes will be sounded at maximum velocity.



Keyboard Velocity= On



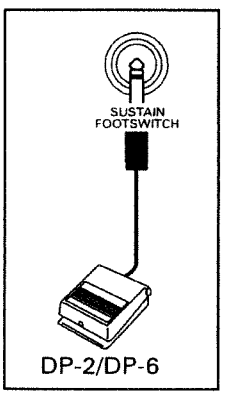
Keyboard Velocity= Off



Sustain pedal (Hold)

If you wish to hold the notes you play (e.g. when you play a piano part), connect an optional DP-2 or DP-6 pedal to the SUSTAIN FOOTSWITCH jack on the E-68's rear panel.

Note: *Except in WHOLE M.DRUMS mode, Pitch Bend, Modulation, and Sustain messages only apply to the Upper1 and Upper2 (if active) parts. In WHOLE M.DRUMS mode, only the Manual Drums part is affected by these messages.*

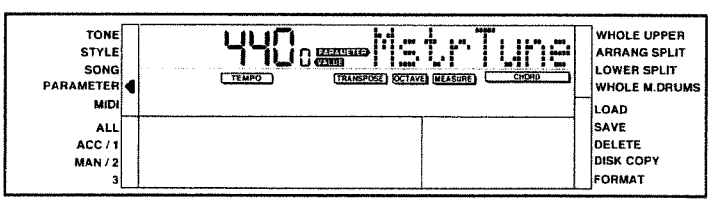


Master Tune (415.3~466.2)

This is not really a performance function, but it allows you to tune your E-68 to acoustic instruments that cannot be tuned.

(1) **Press [FUNCTION/EXIT] to position the arrow next to the PARAMETER message to the left of the display.**

The PARAMETER and VALUE arrows now appear between the value (440.0) and the parameter name to indicate that you can now select parameters and set their values.



(2) **Use the TRANSP/DATA [+]/[–] buttons to select the MstrTune function.**

(3) **Use the OCTAVE/VALUE [+]/[–] buttons to tune your E-68 to the acoustic instrument.**

Press [+] if your E-68 is flat with respect to the other instrument, or [–] if your E-68 is too high.

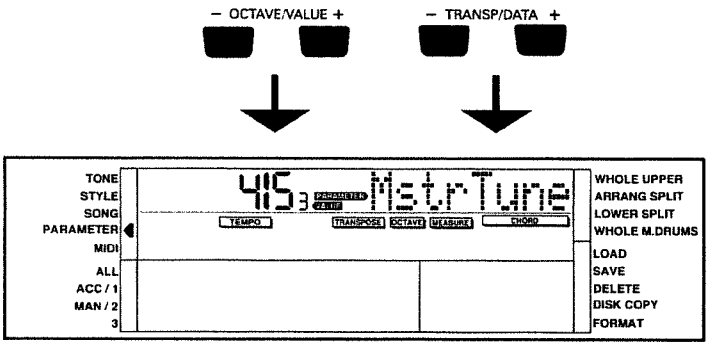
The displayed value (440.0Hz) is the standard pitch for the A4 note.

Note: The Master Tune setting can be saved to a Performance Memory along with the other panel settings, so that you can instantly return to your "recorder" tuning (recorders are instruments notorious for their "off" tuning, but also oboes are extremely difficult to tune).

(4) **Press OCTAVE/VALUE [+]/[–] simultaneously to return to the default setting (A= 440.0Hz).**

(5) **Press [FUNCTION/EXIT] to select TONE again.**

***Note**: It is also possible to change the tuning system (scale) of your E-68. See "Scale Tune (Scale C~Scale B)" on page 156 for details.*

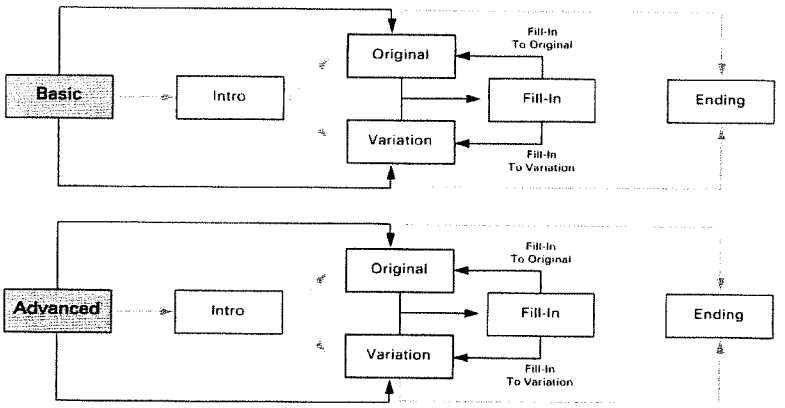


Playing with accompaniment – Arranger

Before showing you how to select Music Styles, let's briefly look at how they are organized.

Arranger and Music Styles

Think of the Arranger's Music Styles as your backing band. The illustration shows that this suggestion is not as preposterous as it may sound because your E-68 is capable of playing several "variations" (called divisions) of a given accompaniment. All you have to do is make up your mind about the kind of music you want to play: is it going to be salsa, rhumba, pop-rock, or big band? You are the band leader, which means that you have to tell the members of your band what to play. In other words, you must explain how many bars there are to each song part and how the melody and/or solo should be accompanied.



Every white square in the above illustration is called a *division*. A division is one version of the selected accompaniment (or Music Style). As you see, there are two main modes: *Basic* and *Advanced*, each consisting of two divisions called *Original* and *Variation*.

As its name implies, Basic is the "normal" accompaniment level, with only the basic ingredients of a professional sounding accompaniment. The Advanced level, on the other hand, may contain another version of the selected Music Style or just a more elaborate one. On either

level (Basic and Advanced) you can choose between the Original accompaniment or an alternative (called Variation). The latter usually adds one or two parts to the current accompaniment, for example power trumpets instead of muted ones.

As the leader of your band, you have to tell the musicians what to play and when to play it. If you want the accompaniment to become more complex as the song evolves, use the sequence in illustration (A).

Other elements help you refine the accompaniment. Instead of abruptly changing to Advanced/ Original, you may want to play a short transition to announce a new part of the song. That is what Fill In [TO VARIATION] and [TO ORIGINAL] are for. See illustration (B) for a useful example of how to use Fill-Ins.

See "Music Style functions" on page 80 for other Music Style divisions and functions you can use to create a professional sounding accompaniment.

(A)

Typical song structure

1st Verse	2nd Verse	1st Chorus	3rd Verse	2nd Chorus
Basic Original	Basic/ Variation	Advanced/ Original	Basic/ Variation	Advanced/ Variation

(B)

Typical song structure

1st Verse (bars 1~7)	V1 (bar 8)	2nd Verse	1st Chorus	3rd Verse	2nd Chorus
Basic Original		Basic/ Variation	Advanced/ Original	Basic/ Variation	Advanced/ Variation

Arranger parts

Each accompaniment (or Music Style) can consist of up to five parts:

A. Drums (Accompaniment Drums): This part takes care of the rhythm. It triggers the drum and percussion sounds of the Drum Set assigned to the ADR part.

A. Bass (Accompaniment Bass). This part plays the bass line of the Music Style you selected.

Ac1~Ac3: These are the melodic accompaniment parts. Depending on the Music Style you selected, only a few of them actually play something, which can be anything

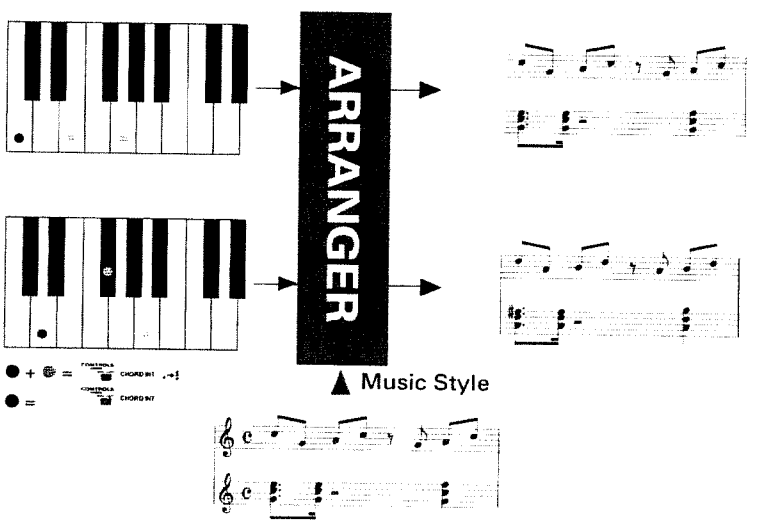
from a piano line, a guitar line, an organ line to a synth pad line. Not all Accompaniment parts play chords.

The A. Bass and Ac parts rely on the chord or note information you play in the *chord recognition* area, i.e. the left keyboard zone assigned to the Arranger in ARRANGER SPLIT mode.

If you start the Arranger without playing a chord in the Assign area, you will only hear the drums of the selected Music Style.

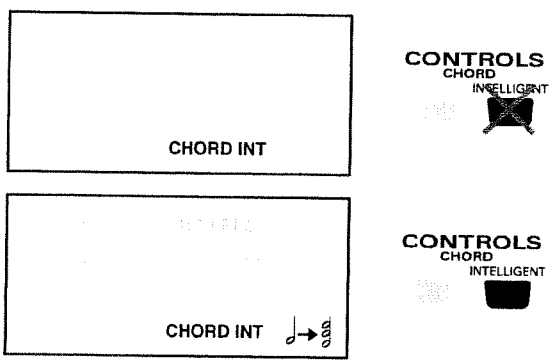
The E-68's Arranger is interactive. It is in fact a processor that uses short "patterns" (the selected Music Style division) and transposes them in realtime according to the notes you play in the chord recognition area (see the illustration), so that the accompaniment always sounds in the key you specify.

All Style Divisions of the Arranger are programmed to play in whichever key you choose by pressing the corresponding keys in the left half of the keyboard.



The Arranger can only be triggered (and used) in ARRANG SPLIT mode. To select this mode, press [KBD MODE] to position the Keyboard Mode arrow next to the ARRANG SPLIT message.

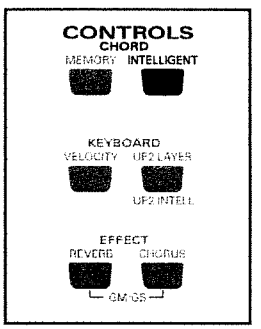
As you see in the first illustration, there are two ways to feed the Arranger with chord information, depending on whether or not you pressed the [CHORD INTELLIGENT] button. If the Chord Int icon (see illustration) is missing, the Arranger's chord recognition is in standard mode: if you play only one note in that area, the accompaniment plays only that note, i.e. it assumes that you deliberately chose to omit the third and the fifth of your "chord".

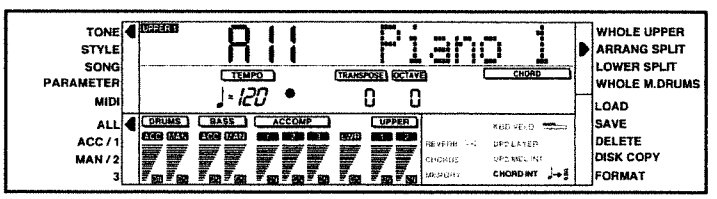


Chord Intelligent

Press CHORD [INTELLIGENT] (the CHORD INT icon appears) whenever you want the Arranger to add the missing notes of the chord you want to play. See the chart at the end of this manual for the available intelligent chords and the way to play them. The E-68 can handle virtually any chord you can think of – and playing them requires no more than three (for minor and seventh chords only two, and for major chords only one) finger(s)! This is probably the mode you will select most of the time.

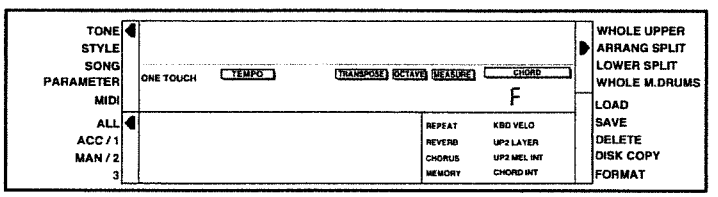
Note: Chord Intelligence can only be activated or deactivated in ARRANG SPLIT and LOWER SPLIT modes, which makes sense, of course, as this function is meaningless in WHOLE UPPER and WHOLE M.DRUMS modes.





Chord Symbol window

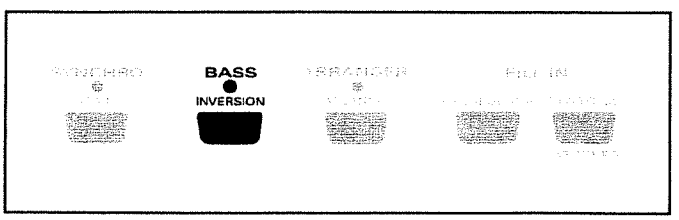
As explained earlier, the chord information window displays the name of the chords you play with your left hand. Please note that, depending on the inversions you play, there may at times be discrepancies between the chord you (think you) are playing and the name that appears in the Chord Symbol window.



Bass Inversion

Press the [BASS INVERSION] button (indicator lights) to change the way the Arranger reads the chords you play. If the indicator does not light, the A.Bass part plays the root of the chords that feed the Arranger.

Activating Bass Inversion gives you more artistic license in that

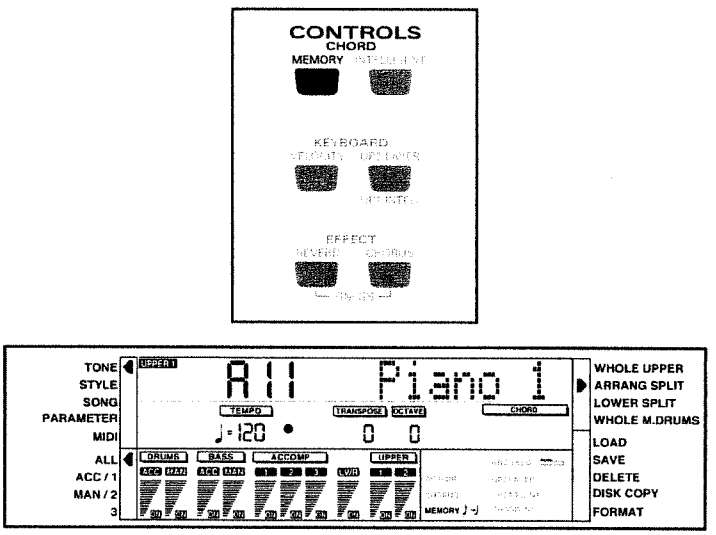


you specify the note played by the A.Bass part. Switch on Bass Inversion for songs that rely on bass rather than on chord patterns (for example C – C/B – C/B♭, etc.).

Chord Memory

Press Chord [MEMORY] (indicator lights) to keep the Arranger playing. As soon as you play another chord, the accompaniment changes, but as long as you play no other chords, the melodic accompaniment keeps playing the previously specified chord. If you do not activate the Chord Memory function, the melodic accompaniment stops as soon as you release the note(s) in the left half of the keyboard.

Note: In LOWER SPLIT mode, this function applies to the Lower part.

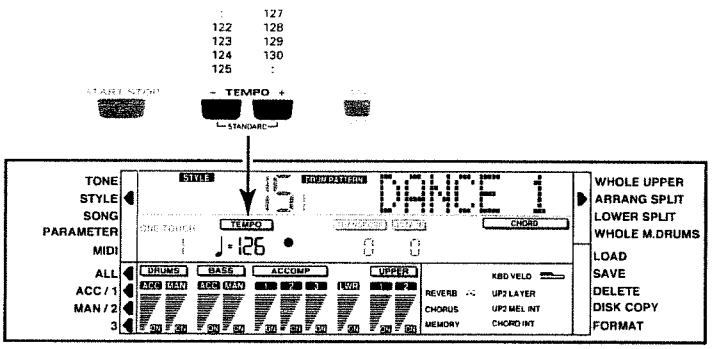


Style Tempo

Every Music Style contains a preset tempo setting that you are free to override using the [TEMPO] buttons. If you think the tempo of the selected Style is too fast, press TEMPO [–]. If it's too slow, press TEMPO [+]. The tempo value you specify manually will be saved to a Performance Memory.

The TEMPO indicators on the display will flash in the rhythm of the selected tempo. The first indicator indicates the downbeat (the beginning) of a new bar. For time signatures like 6/8, etc. the fourth indicator flashes repeatedly to supply the "missing" beats.

Every Style has a preset tempo that will be set every time you select that Style – unless you saved another tempo to a



Performance Memory and select the Style via that Performance Memory.

Music Style functions

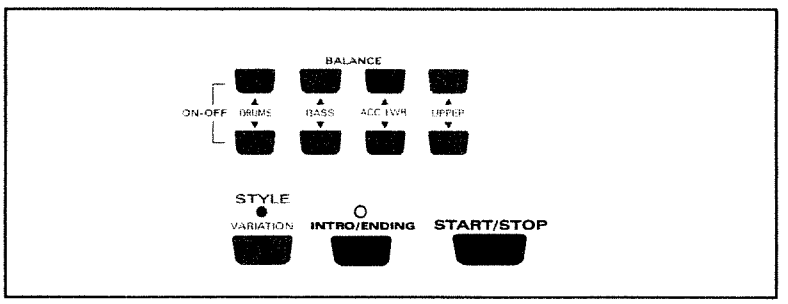
Starting a Music Style

You probably know by now that you can only use the Arranger in ARRANG SPLIT mode. Therefore, do not forget to press the [KBD MODE] button until the arrow (►) appears next to the ARRANG SPLIT message in the display. Music Styles can be started in several ways:

(1) **Press the [START/STOP] button to start the Arranger right away.**

OR:

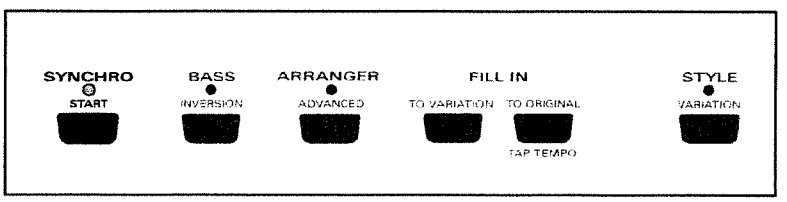
(2) **Stop playback of the current Style (see below) and press the [INTRO/ENDING] button (indicator lights) to start Style playback with a musical introduction. (Playback starts right away.)**



The length of the Intro depends on the Style you selected. At the end of the Intro, the Arranger starts playing the Music Style division you select while the Intro is being played. In other words, you can select whichever division (Basic, Original, etc.) you like to be played upon completion of the Intro.

OR:

(3) **Press SYNCHRO [START] (indicator flashes) and play a chord (or just one note in Chord Intelligent mode, see page 76). The Arranger starts as soon as you play a note in the left half of the keyboard.**



You can combine Synchro Start and Intro, which is probably what you want to do most of the time, because pressing [INTRO/ENDING] while Style playback is stopped causes the

Arranger to play right away – with or without chords...

***Note**: Do not play chord changes while the Intro is running. Unlike the "normal" accompaniments (Basic, Advanced, Original, Variation), Intro patterns usually contain chord changes. Chord recognition is not deactivated during Intro playback, so that the beginning of a song may jump from one key to another.*

Stopping a Music Style

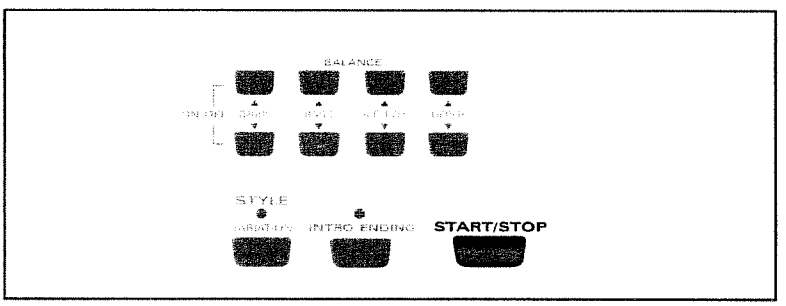
There are two ways to stop Style playback:

(1) **Press [START/STOP] to stop playback right away.**

(2) **Press [INTRO/ENDING] (indicator flashes) to activate the Ending function. The Ending (or coda) pattern will start at the beginning of the next measure (next downbeat).**

***Note**: Do not play chord changes while the Ending is running. Unlike the "normal" accompaniments (Basic, Advanced, Original, Variation), Ending patterns usually contain chord changes. Chord recognition is not deactivated during Intro or Ending playback, so that the ending of a song may jump from one key to another.*

There is no need to restart Style playback manually if you also activate SYNCHRO [START] (indicator lights).

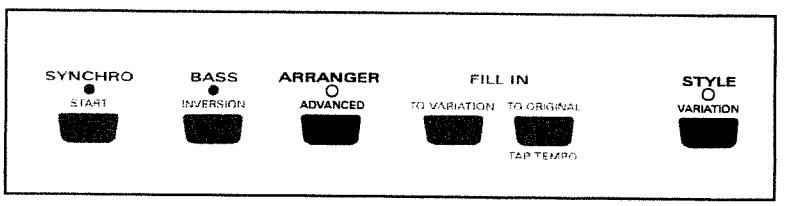


Selecting another Style division

As stated above, you can "professionalize" your performance with the Arranger by selecting different accompaniment patterns. The levels and divisions you can select are:

Basic and Advanced

Press the Arranger [ADVANCED] button to turn off its indicator to select the Basic version of the Music Style (see page 70 for more information about Basic and Advanced). Press the ARRANGER [ADVANCED] button again (indicator lights) to select the Advanced accompaniment level.



Original and Variation

Press the STYLE [VARIATION] button (indicator must go out) to select the "normal" Basic Music Style accompaniment. As stated above, Basic/Original is the simplest of the four possible accompaniment patterns. The second accompaniment level can be selected by pressing [VARIATION] (indicator lights) while Basic mode is active. The same system also applies to the Advanced level, giving you a total of four accompaniments per Music Style (multiplied by three, see the next paragraph).

Major, minor, seventh

This is an "invisible" Style division function of your E-68. In time you will notice that the Intro and Ending patterns of a Music Style change according to the chord you play.

Before going any further, press [STYLE], TONE/STYLE [8] and [5] to select the *85 Musette* Style (see page 94 for full details about Style selection). Press [INTRO/ENDING] and Synchro [START]. The corresponding indicators must light. Play a major chord, stop the Arranger, next play a seventh chord, and finally a minor chord.

In other words, the number of certain divisions (such as the Intros and Endings) is in fact multiplied by three!

Fills: To Original and To Variation

Activate Chord [MEMORY]. Play a chord in the left half of the keyboard and start playback of the current Style by pressing [START/STOP].

Fill In [TO ORIGINAL] and [TO VARIATION] are two fills (or transitions) you can use at the end of a musical phrase (verse, chorus, bridge). These two buttons do two things at a time (see the table).

(1) In Original mode

TO ORIGINAL: Plays the Original Fill but the Arranger remains on the Original level.

TO VARIATION: Plays the Variation Fill and selects the Variation level

(2) In Variation mode

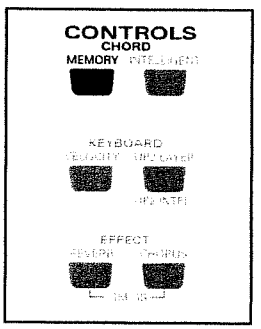
TO ORIGINAL: Plays the Original fill and selects the Original level.

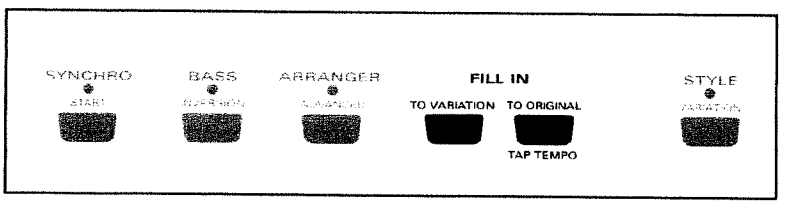
TO VARIATION: Plays the Variation Fill, but the Arranger remains on the Variation level.

Press these buttons now. Start with [TO VARIATION], next press [TO ORIGINAL].

Think of a Fill as the moment in a song when the drummer is allowed to play a roll and the bassist and keyboard players vary their accompaniment by adding a few notes here and there.

Fill-Ins last one bar, but you can produce shorter fills by proceeding as follows: press [TO VARIATION] or [TO ORIGINAL] on the *first through the penultimate* beat of a bar (i.e. the 1st, 2nd or 3rd beat of a 4/4 bar, or the 1st or 2nd beat of a 3/4 bar) to start the fill right away. It will then last until the end of the current bar. If you press the [TO





	Original : STYLE [VARIATION] ○	Variation: STYLE [VARIATION] ●
TO ORIGINAL	Original Fill	Original Fill → STYLE [VARIATION] ○
TO VARIATION	Variation Fill → STYLE [VARIATION] ●	Variation Fill

VARIATION] or [TO ORIGINAL] button on the last beat of the current bar, the fill will start on the following downbeat and last an entire bar.

***Note**: You can also start Style playback with either the [TO ORIGINAL] or [TO VARIATION] button. Doing so will start normal Style playback, however.*

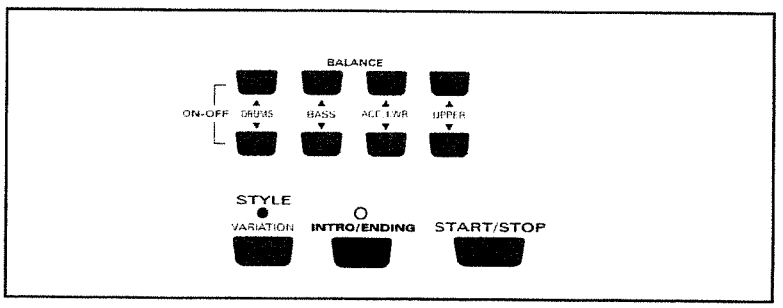
Stop Style playback by pressing [START/STOP].

Intro and Ending

While the selected Style is stopped, press the [INTRO/ENDING] button (indicator lights) to cause Style playback to start with a musical introduction.

The length of the introduction depends on the Style you selected. Some Intros are two measures long, others eight, and so on.

During playback of the Intro, the indicator of the [INTRO/ENDING] button lights. During playback of the Intro, you can press STYLE [VARIATION] (corresponding indicator lights) to select another division that will then be launched upon completion of the Intro.



If you press [INTRO/ENDING] during Style playback, its indicator will flash until the end of the current bar and then light on the next downbeat to indicate that the Arranger is playing the Ending pattern. The Ending function supplies a musical ending for your songs. Again, the length of the Ending patterns depends on the Style you selected.

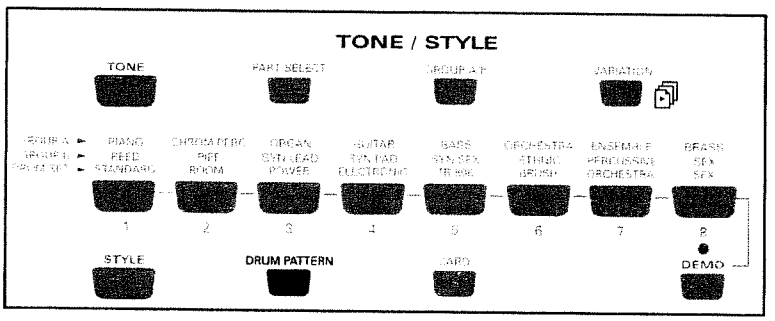
Style playback will be stopped at the end of the Ending pattern.

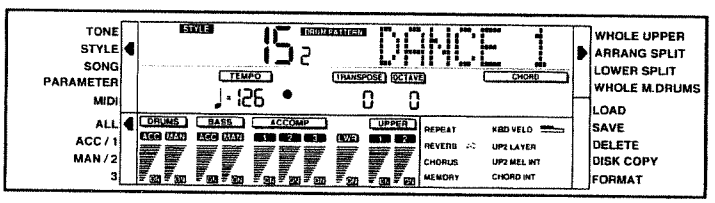
Note: There are two Intros and Endings per Style: a normal one (ARRANGER [ADVANCED] indicator is off) and a more elaborate one (ARRANGER [ADVANCED] indicator lights). Select whichever is more convenient in a give situation.

Drum Pattern (realtime changes of the drum accompaniment)

Your E-68 allows you to "modify" the drum accompaniment in realtime. Selecting another Drum Pattern indeed removes (or adds) drum and percussion instruments. The changes (i.e. the sounds that are added or removed) are preset.

Selecting Drum Pattern 1 will call up all drum and percussion parts of the selected Style. If you select Drum Pattern 2, you will notice that one or two percussion sounds (the congas, for example) disappear. Select Drum Pattern 3 to remove all "non-drumkit" parts and Drum Pattern 4 to select the simplest drum accompaniment of the selected Style.





Select the desired Drum Pattern by pressing the [DRUM PATTERN] button as many times as necessary or by holding down [DRUM PATTERN] while pressing a number button 1~4.

***Note:** As soon as you press [DRUM PATTERN], the display automatically selects the Style mode. To select Tones afterwards, you need to press the [TONE] button in the TONE/ STYLE section again.*

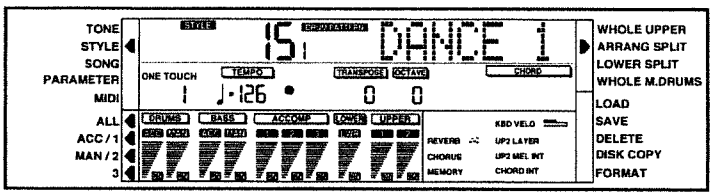
Other useful Style playback functions

One Touch Program

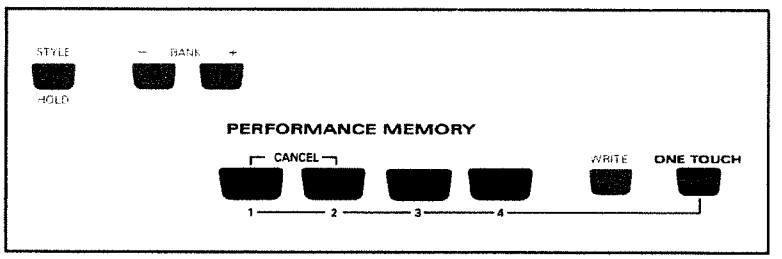
You may find yourself using the One Touch function at regular intervals because it automates quite a few tasks:

(1) Press the [ONE TOUCH] button to activate the One Touch function.

The display responds by showing the ONE TOUCH message as well as a memory number. There are four One Touch memories per Style.



(2) Press a PERFORMANCE MEMORY number button (1~4) to select a One Touch memory.



If you select a Music Style while One Touch is active, the E-68 automatically selects the following:

- The Style display page (same effect as pressing the [STYLE] button).
- Chord Memory "On".
- Preset Style tempo.
- Synchro [START] (lit).
- A Tone for Upper1 and Upper2 that are suitable for the selected Style (four different possibilities, according to the selected One Touch Memory).
- Keyboard Mode ARRANG SPLIT.
- Suitable Reverb and Chorus settings for Upper1 and Upper2. (The Chorus effect is switched on if it was off.)
- Drum Pattern 1.

(3) Press [ONE TOUCH] once more to switch that function off again.

One Touch is useful for situations where you have to respond to song requests, knowing that none

of your Performance Memories contains suitable settings. For your own "repertoire", using Performance Memories is more efficient.

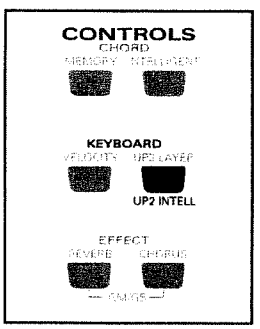
***Note**: Selecting another Music Style when One Touch is on does not cause this function to revert to One Touch memory 1 for the new Style.*

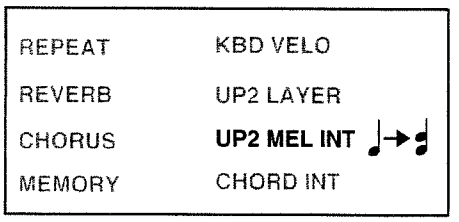
***Note**: It is impossible to select Performance Memories when the One Touch function is on (and vice versa).*

UP2 (Melody) Intelligent

The Arranger of your E-68 can not only play chords but also a counter-melody based on the chords you play in the chord recognition area. This counter-melody will be played by the Upper2 part and added to the Upper1 part. As soon as you press Keyboard [UP2 LAYER/ INTELLIGENT], the Upper2 part is activated. You can assign whichever Tone you like to the Upper2 part.

***Note**: This function is also available in LOWER SPLIT mode. And again, the counter-melody is based on the chords you play with your left hand.*





Selecting Music Styles

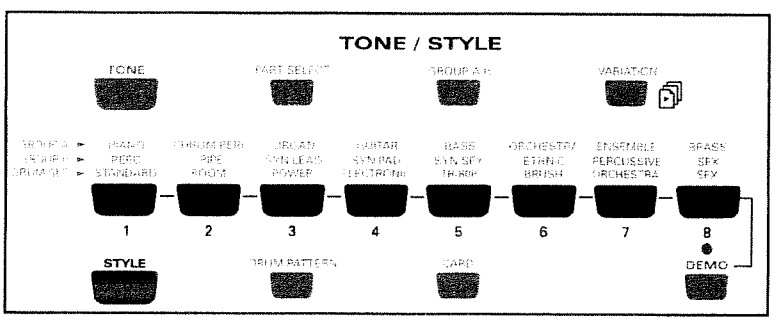
The E-68's Music Styles are divided into 8 banks of 8 Styles.

Here is how to select another style:

(1) **Press the [STYLE] button in the TONE/STYLE section.**

(2) **Press a number button to select a Style bank.**

Press button number 4, for example.

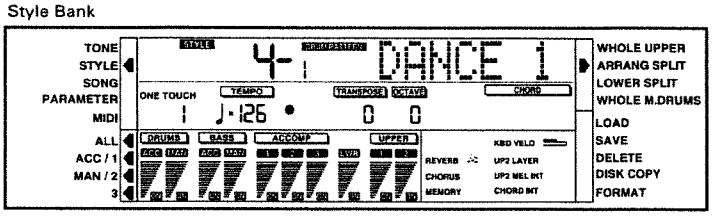


Tip: The Arranger waits until you enter a Music Style number before switching to the new Style, so you could press the first number button a little ahead of where you want to select another accompaniment.

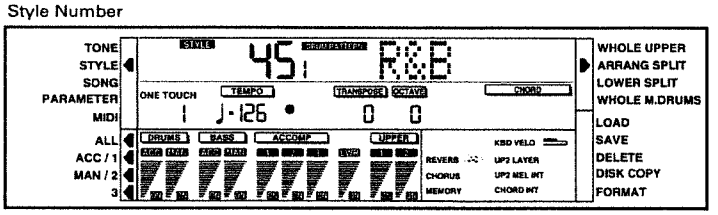
(3) Finally, to select a Style number of this Bank, press another or the same number button.

Press 5, for example, to select Style 45. See the list on your instrument for the available Styles.

Style Bank



Style Number



Using external (Card) Styles

Apart from the internal Music Styles in ROM, you can also work with Styles coming from a TN-SC2 Music Style card (optional).

Selecting Card styles

(1) Insert a TN-SC2 Card into the STYLE CARD slot (above the display).

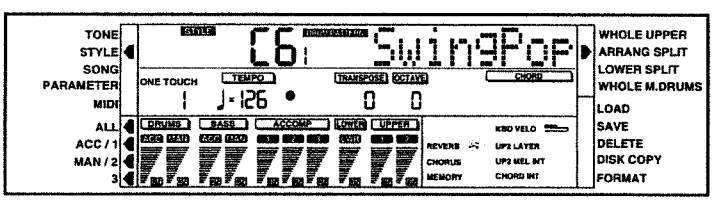
(2) Press [CARD] in the TONE/STYLE section.

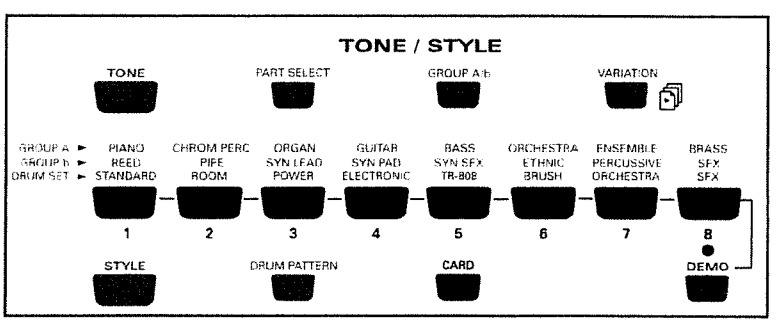
(3) Press a number button (Group and Bank do not work) to select the corresponding Card Style memory.

Note: Press [CARD] again to be able to select internal Styles after selecting a Card Style.

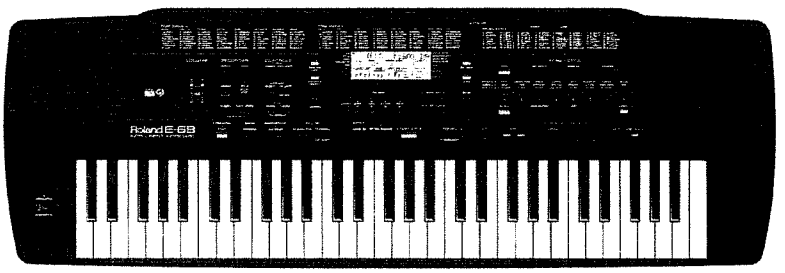
Note: Style selection is one of the elements that can be saved to a Performance Memory (see page 98). Do not forget to insert the correct Music Style card before recalling a Performance memory.

Note: Even though you can also select any One Touch memory (1~4) for Card Styles, they usually yield the same result because only one set of One Touch settings is available for each Card Style.





Writing and loading registrations – Performance Memories



The E-68 is equipped with 64 Performance Memories that allow you to store almost all settings (or registrations) you make on the front panel. So far, we have only discussed the easy part of changing the preset settings. Later on, you will discover that you can also carry out some in-depth work. Those settings can also be saved to a Performance Memory. Before taking a closer look at the E-68's Performance Memories, there is one thing we have to point out, though. *MIDI settings are not saved to a Performance Memory. The reason for this is simple: You probably need a lot more memories for your performance settings than you do for your MIDI settings. Saving the MIDI settings to the Performance Memories would slow down the loading process. On the other hand, there is no need to save your MIDI settings because the E-68 memorizes them automatically.*

Writing your settings to a Performance Memory

It is a good idea to save your settings frequently even if you still need to do some editing afterwards. Those intermediary saves allow you to return to the previous stage whenever you do not like your last modifications. In other words, you could (and probably should) use the

Performance Memories as "recall buffers" to be able to return to the previously edited settings, discarding only the latest modifications.

Try to save your settings after...

- ...selecting Tones for the Realtime parts.
- ... selecting a Style, the first division, and after setting the tempo.
- editing the E-68's Parameters (see page 148).
- ... modifying the volume balance and the effect settings.

In short, every time you like the settings you just made. That way, every subsequent modification can be undone by loading the "provisional" Performance Memory settings you do not want to lose.

Write Protect

Your E-68 is equipped with a Write Protect function that is activated every time you power on your instrument. Write Protect does what its name implies: it protects your Performance Memories from accidental erasure.

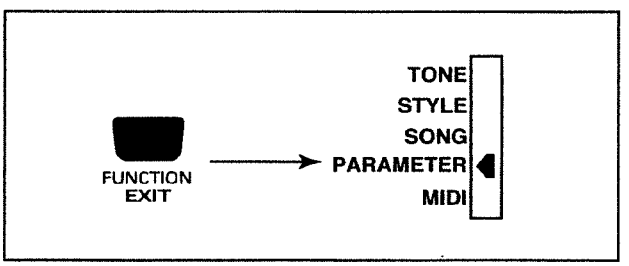
Here is how to turn off Write Protect:

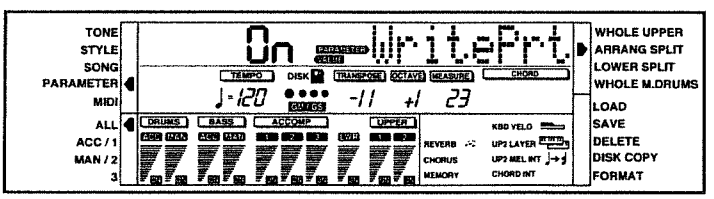
(1) Press [FUNCTION/EXIT] as many times as necessary to select the Parameter mode.

(2) Press TRANSP/DATA [+]/[-] to select "Write Prt".

(3) Press OCTAVE/VALUE [+] to select "Off".

(4) To return to the previous mode (Tone or Style probably), press [FUNCTION/EXIT] again.





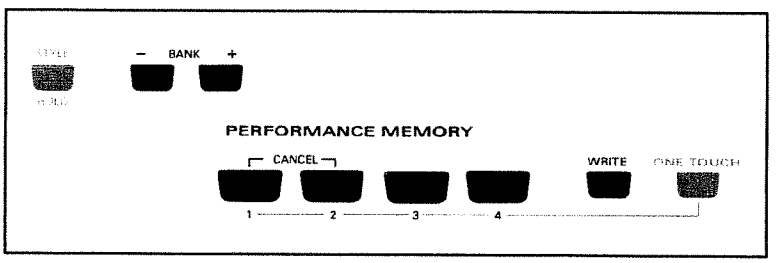
Writing a Performance Memory

It is perfectly possible to program several Performance Memories for one song. Selecting a Performance Memory is a lot faster than selecting the Parameter mode, modifying the settings, etc., while playing. In other words, you could program one Performance Memory for the first part of a song, another one for the bridge, and a third one for the closing section. Doing so allows you to "play" with the On/Off status and volume of the Realtime parts, for example.

(1) Press and hold down the [WRITE] button.

The display asks you whether you are sure want to write your settings to a Performance Memory. If you are, go on. Otherwise, release the [WRITE] button.

You may wonder why you have to keep [WRITE] depressed. We did that so that it is impossible to accidentally overwrite an existing Performance Memory.

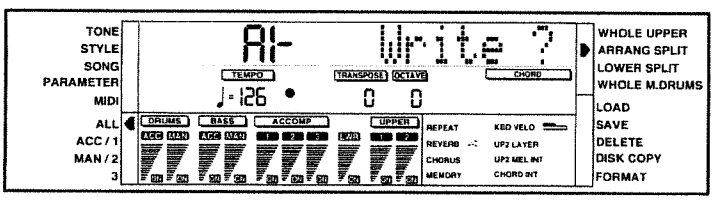


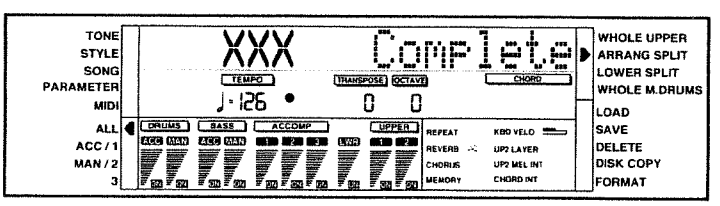
As you see, Group A and Bank 1 are automatically selected. If that is not where you wish to save your settings, proceed as follows (otherwise skip to step (3)).

(2) Keep holding down [WRITE] while pressing BANK [+] or [–] to select another Group & Bank (A2-, A3- ...B1-, B2-, etc.).

(3) Press a PERFORMANCE MEMORY number button (1~4) to write your settings to the selected memory.

The display briefly confirms the Write operation by displaying the Performance Memory number you selected (XXX in the illustration) as well as the "Complete" message.





(4) Release the [WRITE] button.

Selecting a Performance Memory

(1) Press a Performance Memory [BANK] button (+ or –) to select a group and bank (A1-~B8-.)

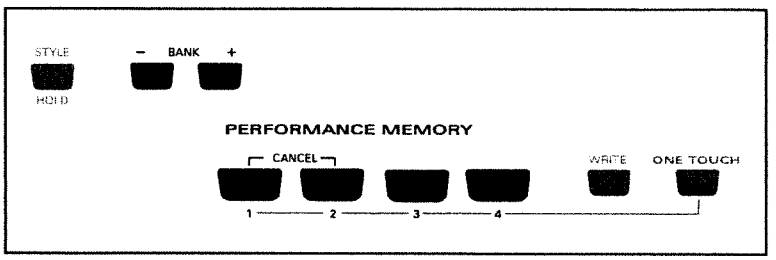
Note: You can perform this step a little ahead of the song part where you want the new settings to take effect. Only when you specify the Performance Memory number will the corresponding settings be loaded.

(2) Press a Performance Memory number button (1~4) to select a memory.

The settings of the selected Performance Memory will be called up.

Note: You do not need to load all Performance Memory settings. See "Selectively recalling Performance Memory settings (Style Hold)" for more information.

Note: As soon as you modify any setting (on the front panel or in the Parameter menu), a dotted line appears underneath the Performance Memory number to indicate that the current settings no longer correspond to the ones you saved. If you like the new settings better than the original ones, write them to the Performance Memory whose number is currently displayed, thereby overwriting the originally saved settings.



PERFORMANCE MEMORY PARAMETERS (GM/GS OFF= Arranger)

Balance (UP1, UP2, LWR, MBS, MDR, ADR◆, ABS◆, AC1◆, AC2◆, AC3◆)
Part On/Off (UP1, UP2, LWR, MBS, MDR, ADR◆, ABS◆, AC1◆, AC2◆, AC3◆)
Balance Select (ALL, ACC/1, MAN/2, 3)
Song Part on/off
Reverb Type
Chorus Type
Tone Prog. Change (UP1, UP2, LWR, MBS, MDR)
Style Prog. Change◆
Octave Up/Down (UP1, UP2, LWR, MBS)
Tempo◆
Master Tune
Manual Bass Decay
Transpose Value
Transpose Mode
Scale Tuning
Card Style Number◆
ArrSplit
LowSplit
Drum Variation◆
KBD Mode
Melody Intelligent
Layer Upper 2
Bass Inversion◆
Synchro Start◆
Chord Intelligent◆
Chord Memory◆
Lower Memory
Lower Chord Intelligent
KBD Velocity
Chorus (Up1 & Up2)
Reverb
Pitch Bend Range
Switch Prf/Sng Master Tune
Switch Prf/Sng Reverb
Switch Prf/Sng Chorus
Switch Prf/Sng Up1 All Channel Messages
Switch Prf/Sng Up2 All Channel Messages
Switch Prf/Sng LWR All Channel Messages
Switch Prf/Sng MBS All Channel Messages
Switch Prf/Sng MDR All Channel Messages

◆: not loaded when STYLE HOLD is on.
◆: wird nicht geladen, wenn STYLE HOLD aktiv ist.
◆: pas chargé lorsque STYLE HOLD est activé.

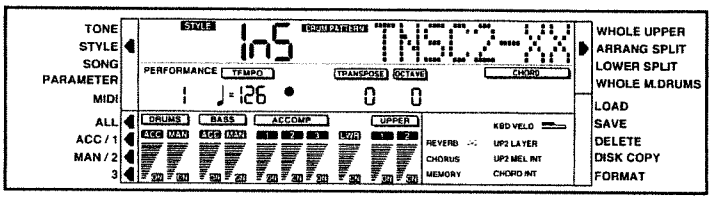
PERFORMANCE MEMORY PARAMETERS (GM/GS ON= Recorder)

Volume (UP1, UP2, LWR, MDR)
Part On/Off (UP1, UP2, LWR, MDR
Song Volume (relative value)
Balance Select (ALL, ACC/1, MAN/2, 3)
Song Part on/off
Reverb Type
Chorus Type
Tone Prog. Change (UP1, UP2, LWR, MDR)
Octave Up/Down (UP1, UP2, LWR)
Master Tune
Transpose Value
Transpose Mode
Scale Tuning (Up1 & Up2)
ArrSplit
LowrSplit
KBD Mode
Melody Intelligent
Layer Upper 2
Chord Intelligent
Arranger Memory
Lower Memory
Lower Chord Intelligent
KBD Velocity
Chorus (Up1 & Up2)
Reverb (On/Off for UP1 & UP2, same effect for Ch 1~16)
Pitch Bend Range (UP1, UP2, MDR)
Switch Prf/Sng Master Tune
Switch Prf/Sng Reverb
Switch Prf/Sng Chorus
Switch Prf/Sng Up1 All Channel Messages
Switch Prf/Sng Up2 All Channel Messages
Switch Prf/Sng LWR All Channel Messages
Switch Prf/Sng MBS All Channel Messages
Switch Prf/Sng MDR All Channel Messages

Note about selecting Performance Memories and Card Styles

You may remember that the number of the Style you select is also memorized. That is even the case of Card Styles. The E-68 remembers both the Card's number and the number of the Music Style of that card that was selected when you wrote your settings to a Performance Memory.

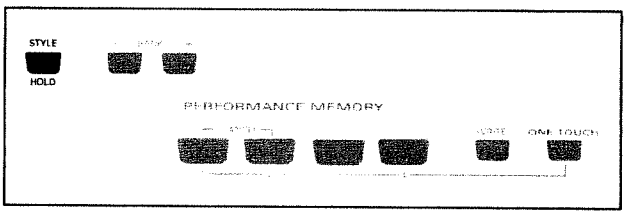
If, at the time you recall such a Performance Memory, the Style Card is not inserted into the STYLE CARD slot, the message shown in the illustration appears. The message disappears after a few seconds, while the Performance Memory will use the last internal Music Style you selected.

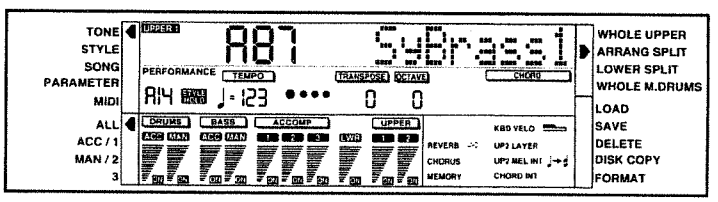


Selectively recalling Performance Memory settings (Style Hold)

Style Hold allows you to keep certain settings of the previous Performance Memory while selecting another Performance Memory. Selectively loading Performance Memory settings allows you to quickly assign other Tones to the Realtime parts *without* loading the Style parameters contained in the new Performance Memory. See the tables on page 104 for the parameters that can be written to a Performance Memory, and those that are *not* recalled when you select a Performance Memory while Style Hold is active.

Pressing the [STYLE HOLD] button without selecting a Performance Memory afterwards has no effect. Only when you select another Performance Memory will the data filter





(because that is what Style Hold is) start working.
In this case, *Hold* is thus taken to mean "keep the settings of the previously selected Performance Memory".

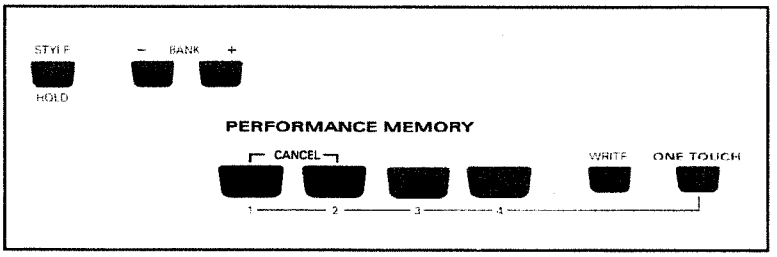
Press [STYLE HOLD].
You may have noticed the "Arranger" and "Recorder" entries in the tables on page 104. That is because there are two ways to use the E-68: as keyboard with automatic accompaniment, and as GM/GS sound module.

Leaving the Performance Memory environment (CANCEL)

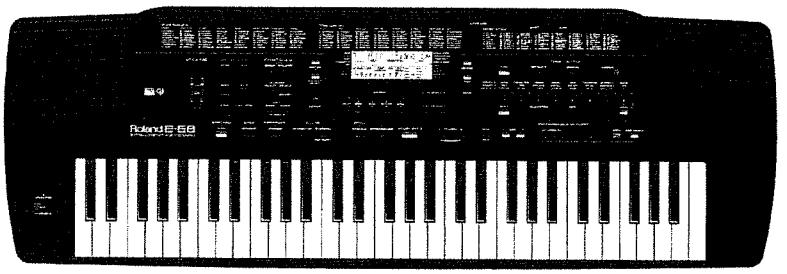
By pressing PERFORMANCE MEMORY [1] and [2] simultaneously, you leave the Performance Memory mode without having to select a One Touch memory.

Simultaneously press Performance Memory 1 and 2 to leave the Performance Memory environment (Cancel).

On older Roland keyboards, this function is called "Free Panel" (i.e. the current panel settings will be used again).

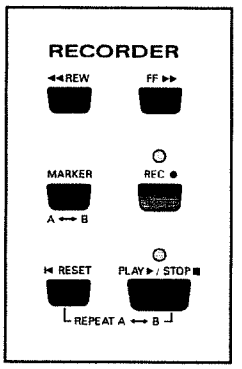


Recorder (GM/GS mode)



The Recorder of your E-68 allows you to record your own songs (or your own versions of existing songs) as well as to play back Standard MIDI Files you load. It is a digital recording device that only memorizes MIDI data. The advantage of this approach is that you can record your music with sounds you think work well, and then decide to use other sounds (or *Tones*, as we have come to call them).

The E-68's Recorder can also play back GM/GS compatible Standard MIDI files. Remember, however, that you have to load the song you wish to play back (one at a time) into its internal RAM memory.



How to record a song

Before recording

Though you can record without using the Arranger, that is probably not what you want to do. Here are a few things you should do before starting to record:

(1) **Stop playback of the current Style.**

(2) **Assign the desired Tones to the Realtime parts you want to use for recording.**

(3) **Select the desired Keyboard Mode (pages 48~50).**

If you want to use the Arranger, select the ARRNG SPLIT mode.

(4) **If necessary, activate the Chord Intelligent and Chord Memory functions (see pages 76 and 78).**

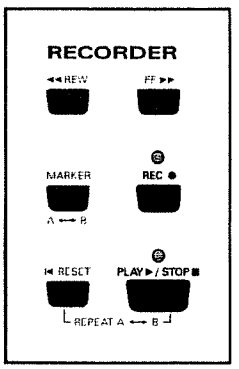
(5) **Select the Style, the division etc. you want to use.**

(6) Press SYNCHRO [START] (indicator lights).
(7) Press [INTRO/ENDING]if that is how you want your song to start.

Note: Instead of performing all these steps, you can also select the Performance Memory or a One Touch memory (see pages 104 and 92).

You're on...

(8) Press the [REC●] button in the Recorder section.
(9) If you activated SYNC [START], play a chord in the left half of the keyboard, otherwise press [PLAY►/STOP■].
(10) Start playing.
(11) At the end of the song, press [PLAY►/STOP■] again to stop recording.



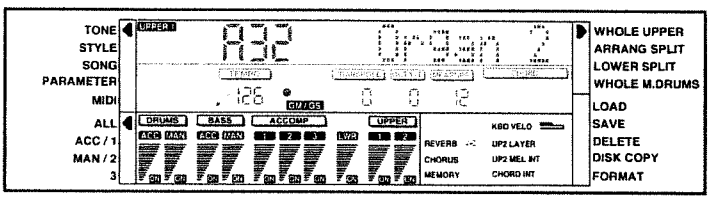
While recording, you can press [START/STOP] to stop the Arranger without stopping the Recorder, which is nice for ad lib solos. You could even restart the Arranger at a later stage, yet doing so is a bit risky: the Arranger would indeed start at the next downbeat. Seeing that "ad lib" usually also involves free tempo, chances are that starting the Arranger again will ruin your entire song.
Whatever you do, remember, though, to stop the Recorder by pressing the [PLAY►/STOP■]. Otherwise, it will record countless blank measures.

If you did not like your recording, you can give it another try and go back to step (8).

Note: The last song you recorded will remain in the E-68's memory until you record or load another one from disk, or until you load the E-68's factory settings.

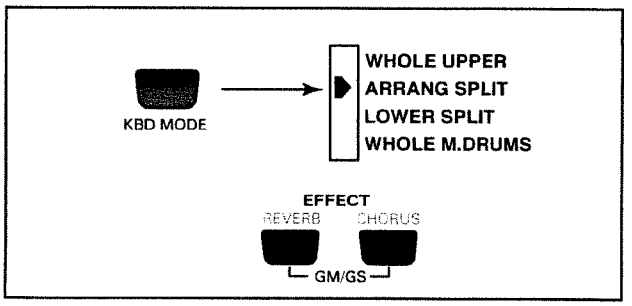
Song playback

Recorder song playback transforms the E-68 into a GM/GS sound module, thereby deactivating the Arranger section of your instrument. That is why the GM/GS icon is displayed as soon as you press the [PLAY►/STOP■] button to start playback.



We will discuss the other GM/GS functions later. Just remember that, if you decide to redo your song after listening to it, there are two things you have to do to be able to use the Arranger again:

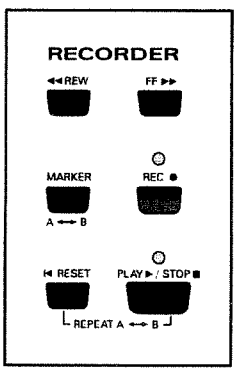
- Simultaneously press EFFECT [REVERB] and [CHORUS] to deactivate the GM/GS mode.
- Press [KBD MODE] to select the ARRNG SPLIT mode (provided, you want to use the Arranger for recording).



(1) Press [I◄ RESET] to return to the beginning of the song.

The Recorder now reselects all parameter values that you (or someone else, see "Playing back Standard MIDI Files" on page 124) recorded. In other words, if you select another Tone for Upper1 *after* recording but *before* pressing [PLAY►/STOP■], that selection will be cancelled.

The Realtime parts remain active in GM/GS mode, so that you could add a second melody line in Realtime if you felt like it.



(2) Press the Recorder [PLAY►/STOP■] button.

As soon as you hit the Recorder [PLAY►/STOP■] button, the GM/GS message appears underneath the Tempo dots to indicate that the Arranger can no longer be used because the E-68 now works as a GM/GS compatible sound module.

(3) To stop playback, press the Recorder [PLAY▶/STOP■] button.

(4) Simultaneously press EFFECT [REVERB] and [CHORUS] to exit the GM/GS mode and return to the E-68 mode.

Saving your song to disk

Though you can switch off your E-68 without losing the song in its internal memory, be aware that it will be erased in certain cases (see page 118). Always save important songs to disk.

(1) Insert a blank disk into the drive.
If this is not the first song you save to disk, you may, of course, use the disk you used for previous songs.

Formatting a disk

Before being able to save files to a disk, you need to prepare a floppy disk. You are free to use 2DD or 2HD disk. Please do not use the cheapest disks available unless you are absolutely sure that they are reliable. It would be a pity to lose a great recording because the disk you saved it to has become unreadable.

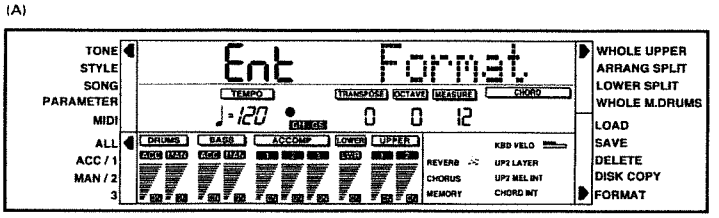
If the floppy you are about to use is IBM PC formatted, there is no need to format it, though disk access is faster with E-68 formatted disks. Otherwise proceed as follows:

(For now, we'll assume that your disk is not yet formatted. If it is, skip to step (6)).

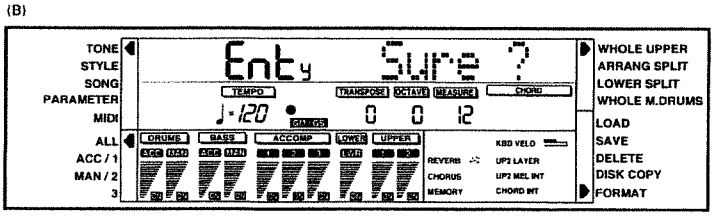
(2) Press the [DISK] button to select FORMAT.

(3) Press the [ENTER] button.
The display now asks you whether you are sure you want to format the floppy disk (illustration B).

(A)



(B)



***Note**: This is your last warning. Pressing [ENTER] again will erase all data on disk. If you are "recycling" a disk you used on another device (computer, hardware sequencer, etc.), it would be a good idea to press the EJECT button of the disk drive and look at the label. If you are certain you'll never need the data on that disk again, go ahead. Otherwise insert a blank disk.*

(4) Press [ENTER] again.
The display now responds with "hd Format" (2HD floppy) or "dd Format" (2DD floppy), after which the message in illustration A is displayed again.

(5) To leave the Disk mode, press the [KBD MODE] or [FUNCTION/EXIT] button.

Saving your song

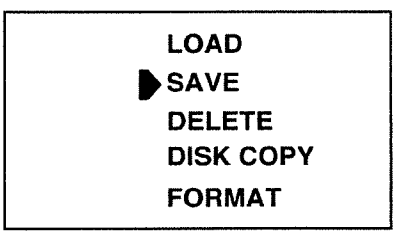
(6) Press [DISK] to select SAVE.
Seeing that SAVE Sng (Save Song) is already selected, there is no need to press TRANSP/DATA [+]/[–] here.

Since there is only one song memory, you will have to save all songs you wish to keep to disk, and load them one after the other when you want to listen to them again.
The song in the E-68's internal memory is erased when you:

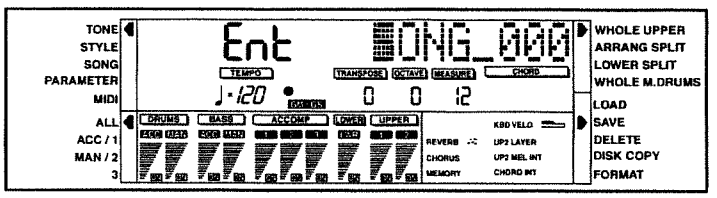
- record a new song,
- load another song from disk,
- load the factory settings (see "Initializing your E-68 (Factory)" on page 210), or
- copy disks.

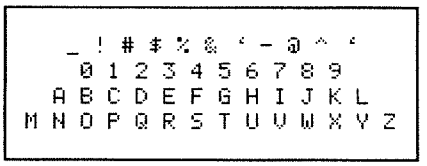
MAKE IT A HABIT TO SAVE YOUR SONGS TO DISK BEFORE SWITCHING OFF THE E-68, even though that is unnecessary. Musicians are usually bad at housekeeping and keep forgetting those ostensibly insignificant details...

(7) Press [ENTER].



You could save this song with the current default name (SONG_001). A proper name, though, will help you identify the song file at all times. We therefore suggest you take the time to specify a meaningful name. Therefore take the time to assign a meaningful name to your song.





(8) Use the OCTAVE/VALUE [+]/[–] buttons to assign a different character to the blinking cursor position (currently the "S"), and the TRANSP/DATA [+]/[–] buttons to move the cursor to the next or previous position.

(9) Press [ENTER] again to save your song under the name you have just entered.

The display responds with "Saving", then "Complete", and finally returns to the SAVE Sng message.

(10) To leave the Disk mode, press the [KBD MODE] button.

Useful Recorder playback functions

Lyrics function

The E-68's Recorder is also capable of reading Lyrics data contained in Standard MIDI Files. Such Standard MIDI Files also contain the lyrics of the songs. This function was provided to allow you to read the lyrics of the song the Recorder is playing back in a karaoke fashion: the words to sing will be highlighted at the right time. The Lyrics function only transmits the Lyrics data to the E-68's MIDI OUT port. If you connect a Roland LVC-1 Lyrics-Video Convertor, you can read the lyrics on a TV set or monitor screen connected to the LVC-1.

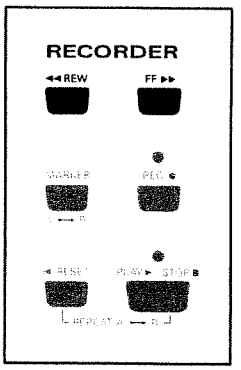
The E-68's display is incapable of displaying these data.

Fast Forward, Rewind, and Reset

To fast forward, press the [FF ►►] button, to rewind, press [◄◄ REW]. You can hold down either button to accelerate the fast forward or rewind process. The display will help you locate the measure you need (watch the MEASURE field).

Press [I◄ RESET] to jump back to the first measure of the song. You need to stop playback before being able to use the [I◄RESET] button.

Note: *These buttons only work in GM/GS mode. You cannot use them while the Arranger mode is active. In other words, you have to press the EFFECT [REVERB] and [CHORUS] buttons before you can fast, forward, rewind, or reset.*



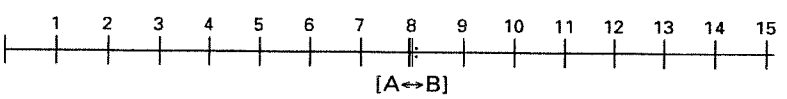
Markers and playback loops

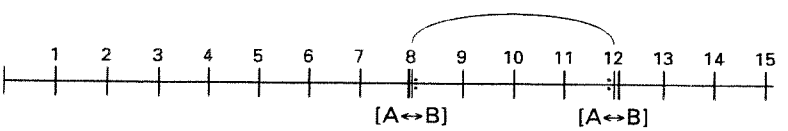
The E-68 also provides a marker and REPEAT function for you to practice difficult solos or to repeat a given song part.

You can program the start and end measures of the playback loop during playback or while the Recorder is stopped.

(1) **Press [A↔B] where you want the loop to begin (the REPEAT message flashes).**

(2) **Fast forward to the measure where you want the loop to end and press [A↔B] again (REPEAT message lights steadily).**





You can also program loops on the fly. Remember, however, that the Recorder always memorizes the beginning (downbeat) of the next measure.

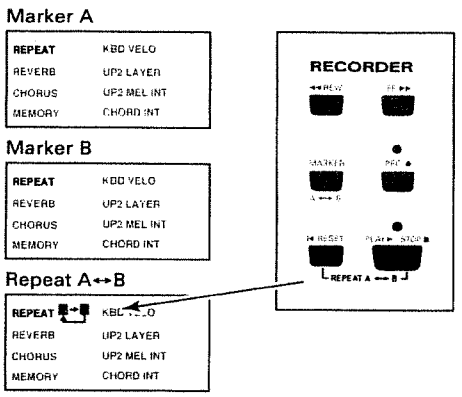
(3) **To play back the loop you have just programmed, hold down Recorder [|◄ RESET] and press [PLAY►/STOP■].**

At the end of the B measure, the Recorder immediately jumps back to the beginning of measure A.

(4) **To stop playback, press the Recorder [PLAY►/STOP■] button.**

Note: *The Marker points cannot be memorized. You will have to set them again next time you switch on your E-68.*

Note: *The loop function can only be used when you program both an A and a B Marker.*



Playing back Standard MIDI Files

As stated earlier, you can also play back commercially available Standard MIDI Files or songs you already saved to disk. If you wish to play back commercially available Standard MIDI Files (or your own songs), you have to load them in to the E-68's internal memory.

The E-68 provides one Recorder memory, and loading a new song will erase the one you recorded or loaded earlier. That is probably the best reason why you should make it a habit to save every finished song to disk before recording or loading another one. See above.

Loading songs

Here is how to load a song (or SMF, which is basically the same) from disk in to the internal memory.

(1) Insert the disk that contains the file to be loaded into the drive.

(2) Press [DISK] to select LOAD.

Seeing that LOAD Sng (Load Song) is already selected, there is no need to press TRANSP/DATA [+]/[–] here.

Note: The song in the E-68's internal memory is erased when you load a new song or Standard MIDI File. If you wish to keep the song in the E-68's internal memory, save it to disk (see above).

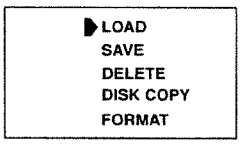
(3) Press [ENTER].

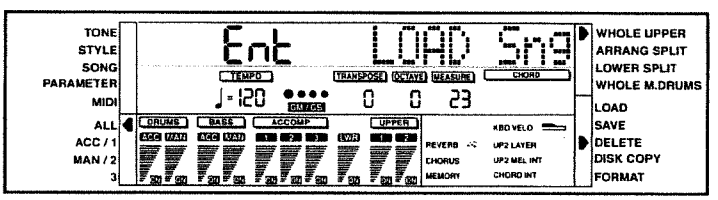
The display now shows the number and name of the first song on disk.

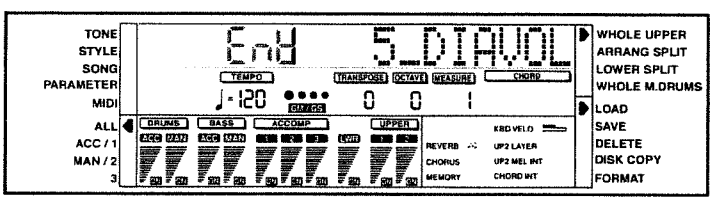
(4) Use the OCTAVE/VALUE [+]/[–] buttons to select the song you wish to load.

(5) Press [ENTER] again to load the selected song.

As soon as the song is loaded, the display returns to the "Ent LOAD Sng" message.





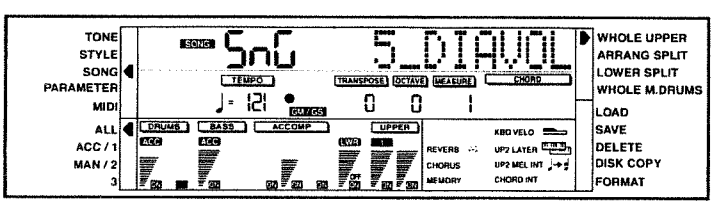


Song mode

The E-68 also provides a mode allowing you to confirm whether you loaded the correct song:

(6) Press [FUNCTION/EXIT] to select the Song mode.

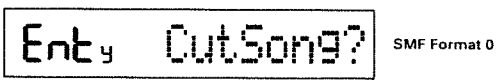
The number and name of the song currently in the E-68's memory are now displayed. If that is the song you wish to listen to, press [PLAY►/STOP■] to start playback. Otherwise load another song.



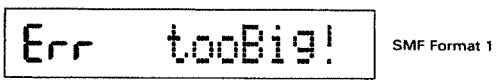
Notes concerning the Load Sng function

At times, the E-68 may display an error message to warn you that the song file you are about to load is too big for the internal RAM memory. There are two messages related to insufficient RAM capacity:

Cut Song?
This message means that you are about to load a Format 0 Standard MIDI File and that you can decide to load only the portion that fits into the E-68's song memory. Press OCTAVE/VALUE [+] to select "y" (Yes) if you wish to partially load the song. Otherwise press OCTAVE/VALUE [–] to select "n" (No) if you'd rather not load the song. Next, press [ENTER].



SMF Format 0



SMF Format 1

tooBig
This message means that you are about to load a Format 1 Standard MIDI File that is too big for the E-68's song memory and cannot be loaded. This message will disappear after a few seconds.

Note: It is rather unlikely that you will ever come across these messages as most Standard MIDI Files fit comfortably in the E-68's song memory.

Playback

Go back to "Song playback" on page 114 to play back the song you have just loaded.

Live performance with Standard MIDI File backing (Minus One)

Your E-68 allows you to mute any given part of the song you are currently playing back. You could use this feature to mute the solo part so that you can play it yourself. This is called Minus One playback (because one part of the original song will not be played back).

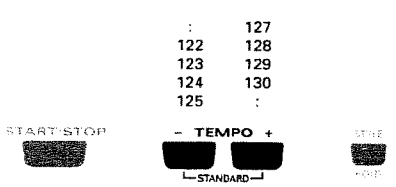
All Realtime parts remain active in Recorder (or, should we say, GM/GS) mode. In other words, you are free to use the Upper1, Upper2, Lower, and Manual Bass parts if you like. The Manual Drums part is also available but, as you remember, selecting the M.Drums part means that the other four Realtime parts are temporarily deactivated.

***Note**: Whenever you start playing back a new song or return to the beginning of the current song (using [|◄ RESET]), all Realtime parts, except Upper1, will be switched off and the E-68 will select the WHOLE UPPER keyboard mode.*

***Note**: Standard MIDI Files and your own songs also contain settings relative to the Tones, effect settings, etc., used.*

Changing the song tempo

You can change the song tempo with the [TEMPO] buttons. Doing so, however, means that the tempo will still change if the song you are playing back contains tempo change messages. Furthermore, every time you jump back to the beginning of the song using [|◄ RESET], the programmed song tempo will be set.



Muting song parts

The E-68 allows you to mute Song Parts. Obviously, muted Song Parts do not sound during playback.
Before showing you how to mute song parts, there is something else you need to know.

Muting a part (1)

In most instances, you probably only want to mute the Song Part that plays the melody, so that you can play it yourself using the Upper1 part. The Song Parts you can substitute with Realtime parts are indicated in the table.

Here is how to mute the melody part:

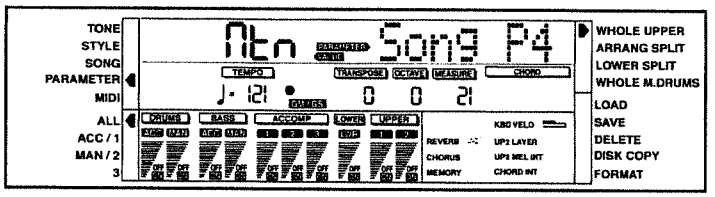
(1) **Press [BALANCE SELECT] to place the lower arrow next to the ACC/1 message.**

See "Part Balance (Volume) and Mute" on page 140 for more information about how to set the volume balance.

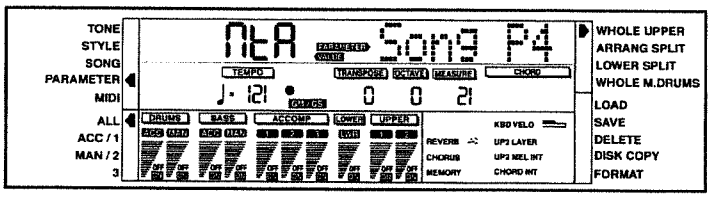
(2) **Simultaneously press Balance UPPER ▲▼ to mute Upper1 (i.e. the melody part).**

Not to worry: the Upper1 part (i.e. the part you yourself can play) is still active. You just muted the melody of the Recorder song that is linked to the Upper1 part. This link ensures that Upper1 sounds and behaves the same as the melody part.

Mute Note



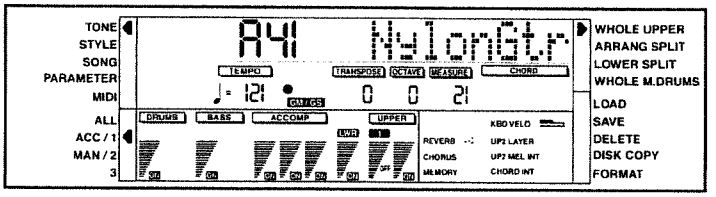
Mute All



Song Part	MIDI channel/ (Song Part #)	E-68
Drums	10	Manual Drums
Chord Backing	3	Lower
Solo/melody	4	Upper1
Counter-melody	6	Upper2

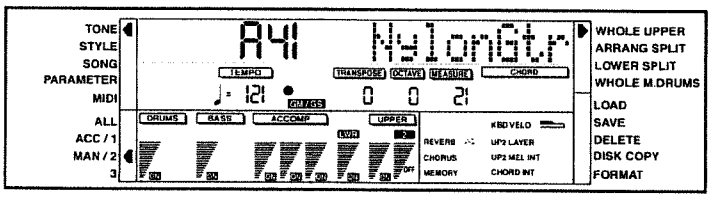
Though the display briefly shows the Balance (i.e. volume) value for the Upper1 part, you need only worry about the OFF message (see the illustration).
To "unmute" the melody part, press UPPER ▲▼ again.
You can also mute the drums and bass line:

(3) To mute the drums, simultaneously press Balance DRUMS ▲▼, to mute the bass, simultaneously press Balance BASS ▲▼.



Now suppose you wanted to mute the Song Part that is linked to the Upper2 part:

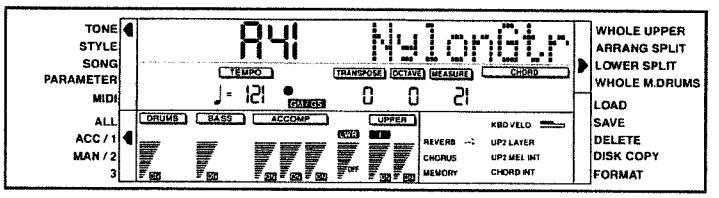
(4) Press [BALANCE SELECT] to place the arrow next to MAN/2.
(5) Simultaneously press UPPER ▲▼ to mute the Song Part that is linked to Upper2.



You can also mute the Song Part linked to the Lower part. To do so via the BALANCE keys, proceed as follows:

(1) Press [KBD MODE] to select the LOWER SPLIT mode.
(2) Simultaneously press Balance ACC/LWR ▲▼.

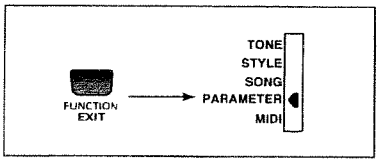
Note: In this case, you do not need to select a given Balance mode.



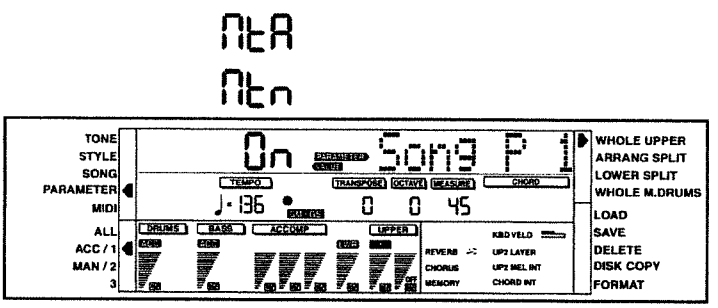
Muting a part (2)

The following method allows you to mute any Song Part. Remember, however, that there are only four Song Parts you can replace with your own playing. See the table on page 132.

(1) First check whether the GM/GS icon is displayed. If it is not, simultaneously press EFFECT [REVERB] and [CHORUS].
(2) Press [FUNCTION/EXIT] to select the PARAMETER mode.



(3) Press TRANSP/DATA [+] as many times as necessary to select the Song P1 message.
(4) Use the OCTAVE/VALUE [+]/[–] buttons to select On, Mtn, or MtA.



On: The Song Part sounds normally.

Mtn:The Song Part does not sound. MIDI messages other than Note On/Off and Velocity, however, are executed normally. That way, Tone selection, pitch bend, modulation behave normally. This setting is useful for those Song Parts you can replace with your own playing.
That also explains why this is the mode selected by pressing the BALANCE ▲▼ buttons on the front panel.

MtA mutes all MIDI messages for the corresponding Song Part.

Note: *These settings can be saved to a Performance Memory. So recall such a Performance Memory every time you wish to play back a song without using all its parts.*

About GM/GS

Every Recorder song you play back (whether it is a song you recorded with the E-68 or a Standard MIDI File you loaded) contains a GM System On/GS Reset message that causes the tone generator's settings to return to the default values agreed upon for GM/GS sound generators.

This message contains the same information as the command string that is sent to the E-68's tone generator when you select the GM/GS mode by hand (simultaneously press EFFECT

[REVERB] and [CHORUS]). This initialization causes all parts (except Song Part 10, which takes care of the drums in the same way as the Manual Drums part, see page 52) to select the A11 Piano sound, which is not very musical. Just imagine a bass or trumpet part being played by a piano...

Fortunately, the MIDI messages of your Recorder songs and the Standard MIDI File you load also contain a lot of other settings relative to Tone selection, Pitch Bend Range, etc., that "put everything right again".

If you never use the E-68 as sound module for an external sequencer or computer with sequencing software, you may never notice this oddity. However, if you do wish to use your E-68 as sound module, call up the GM/GS mode by simultaneously pressing EFFECT [REVERB] and [CHORUS], and remember that you will have to select the desired Tones, Pitch Bend Range, etc. settings by hand (or via MIDI). You only have to do this once for every new song you record with the external device.

There are a number of switches that allow you to ignore the "right" settings for every Song Part. See "Editing via the Parameter menu" on page 148 for details.

Editing

Editing is a term used to describe any action that changes the settings that are currently in effect. Selecting other Tones for the Realtime parts (see page 54) is already a form of editing.

The settings of all parameters in this chapter can be saved to a Performance Memory and loaded whenever you need them (see "Writing and loading registrations – Performance Memories" on page 98).

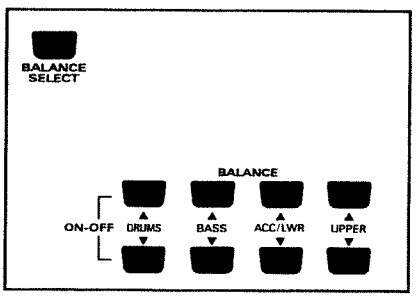
Editing via the front panel

Part Balance (Volume) and Mute

Part balance is the single most important editing operation because the volume of the parts you play determines the sound mix. If a part is too soft, you don't hear it, if it is too loud, the sound image will seem out of balance.

Note: *We strongly recommend that you first assign the Tones you need to the parts you intend to play because the character of the sounds you use affects the balance. Thus, a trumpet sound will be perceived louder than a flute because the former contains more harmonics (overtones).*

What you see on the front panel, are four pairs of BALANCE ▲▼ buttons, which is not enough to cover all Realtime and Arranger/Song parts. That is because the ACC button represents a group of three parts in Arranger mode, and of 16 parts in GM.GS mode. In other words, these buttons control the volume of the ACC1~ACC3 parts (Arranger), and also the Lower part (Realtime).



The functions of these buttons vary according to the Keyboard Mode you select, and according to the setting of the [BALANCE SELECT] button.

Part Balance & mute (On/Off) in Arranger mode

(1) ALL: the BALANCE buttons change the volume of and/or mutes entire groups.

Here is how the system works:

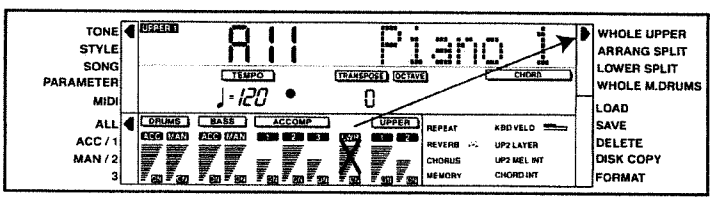
White boxes refer to the groups that can be set (volume or on/off). In display page (A), that would be: Drums, Bass, Accompaniment, and Upper.

To select the Lower "group" (B), press [KBD MODE] to call up the LOWER SPLIT mode. In that case, the ACC/LOWER buttons no longer apply to the Arranger's Accompaniment parts (ACC 1~3) but to the Lower Realtime part.

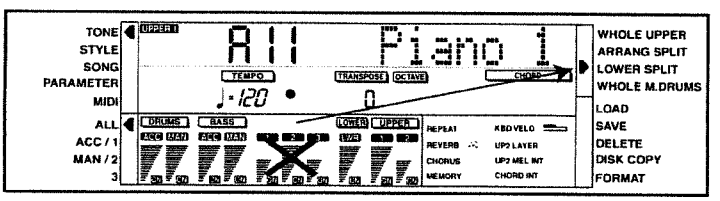
Black boxes refer to the members that can be set (volume or mute). In ALL mode, all members of a group are set simultaneously (i.e. Accompaniment *and* Manual Drums, Accompaniment *and* Manual Bass, etc.).

The BALANCE buttons are always assigned to the parts in black boxes whose white box is visible..

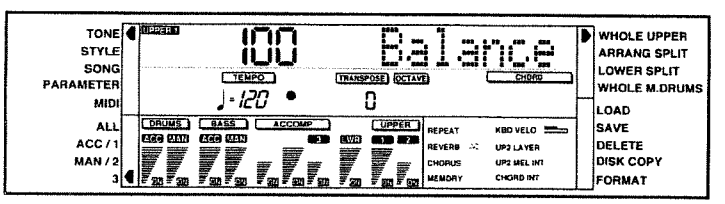
(A)



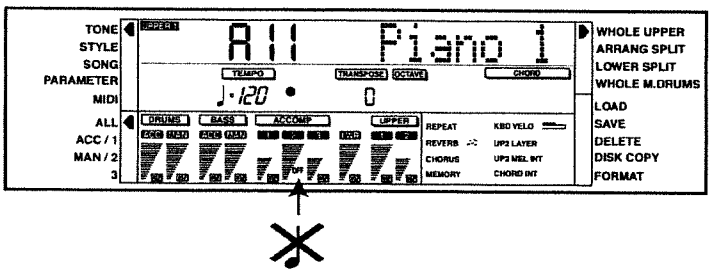
(B)

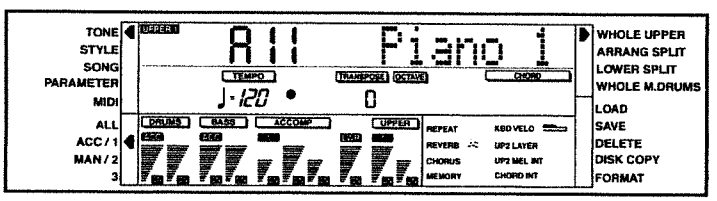


Volume: (Balance, 0~127) Use the BALANCE ▲ buttons to increase the volume and BALANCE ▼ to decrease it. To decrease the volume of the Upper1 and Upper2 parts, for example, press Balance UPPER ▼.



On/Off (mute): Simultaneously press BALANCE ▲▼ of the group or part you wish to mute. To mute the drums (Accompaniment and Manual), for example, simultaneously press Balance DRUMS ▲▼. When you mute a part, its ON box will be replaced by an OFF message.

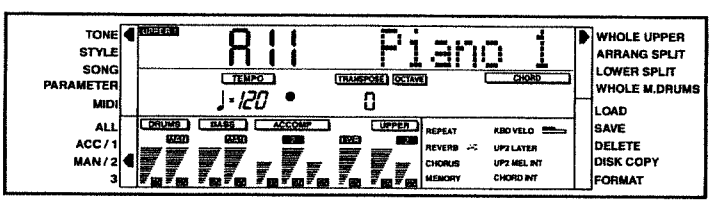




(2) ACC/1: changes the volume of and/or mutes the ACC, 1, and UPPER1 parts

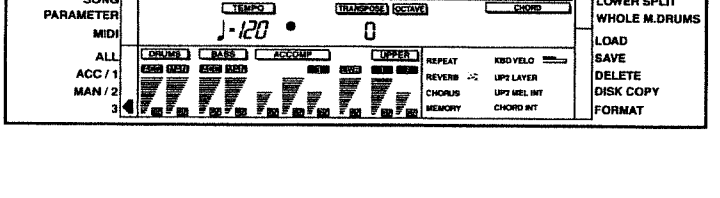
Remember that the function of the ACC/LWR buttons depends on whether the LOWER SPLIT mode is selected or not.

Use the [BALANCE SELECT] button to place the arrow next to "ACC/1".



(3) MAN/2: changes the volume of and/or mutes the MAN, 2, and UPPER2 parts.

'MAN' refers to the M.Drums and M.Bass parts. 1, 2, and 3 refer to the accompaniment parts.



(4) 3: changes the volume of and/or mutes the ACC& MAN, 3, and UPPER 1&2 parts.

Part Balance & mute in GM/GS mode

Here, the [BALANCE SELECT] and BALANCE buttons work differently.

ACC/LWR (63~0~-64) Act as master song volume controls (i.e. for all 16 Song Parts). That is why you can set positive (louder than the programmed volume) and negative (softer than the original volume) values. Use this feature whenever the Realtime

part(s) you wish to use are too soft with respect to the Recorder song even if their volume is set to "127". The value "0" corresponds to the original (i.e. programmed) song volume.

Note: *This is in fact a volume parameter that increases (or decreases) the volume of* all *Song Parts by the same amount.*

DRUMS, BASS, UPPER ▲▼: These buttons allow you to set the volume of or mute the drum, bass and melody Song Parts respectively.

Note: *The volume of these parts is also affected by the setting performed with the ACC/LWR ▲▼ buttons.*

Note: *The black LWR, (UPPER) 1 and 2 boxes are a bit misleading: they do not refer to the Realtime parts but rather to the Song Parts that can be set. See the table on page 132 for the Song Part/Realtime part assignments.*

All volume and ON/OFF settings can be saved to a Performance Memory.

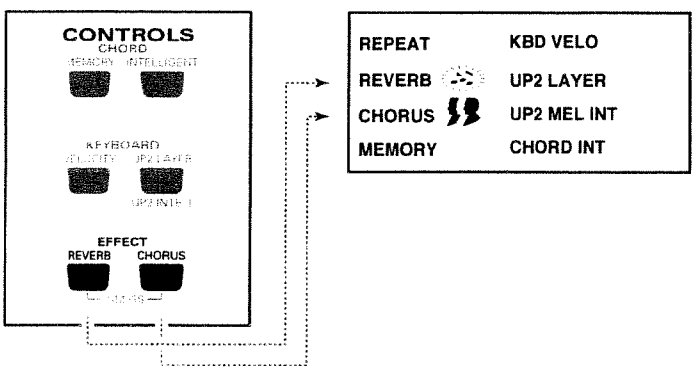
Effects

The E-68 is equipped with two programmable effects: Reverb and Chorus.

Note: *You can select different Reverb and Chorus types if the presets are not to your liking. See "RevType (Reverb Type)" and "ChrType (Chorus Type)" on page 154.*

Reverb

To activate the Reverb effect,press the EFFECT [REVERB] button. An icon will appear next to the REVERB message. If you don't need the Reverb effect, press that button again (icon disappears).



Note: It is probably a good idea to leave the reverb effect on at all times to get a livelier sound image.

Chorus

To activate the Chorus effect, press the EFFECT [CHORUS] button. An icon will appear next to the CHORUS message. If you don't need the Chorus effect, press that button again (icon disappears).

To activate the Chorus effect. press the EFFECT [CHORUS] button. If you don't need it, press that button again.

Note: This switch activates or deactivates the Chorus for the Upper1 and Upper2 parts only. There is no way to add Chorus to the Lower, Manual Bass, or Manual Drums parts via the front panel.

Editing via the Parameter menu

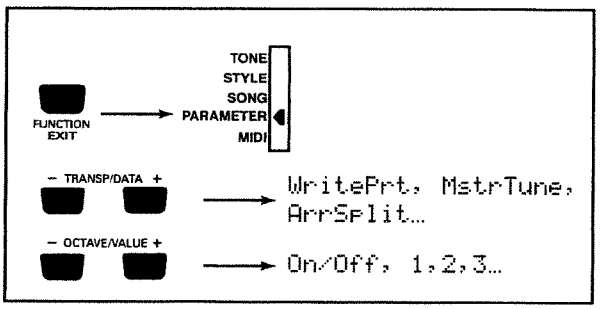
Your E-68 allows you to edit certain parameters that affect the way a part sounds when you play it.

How to edit the parameters (general procedure)

You can edit the E-68's parameters via the display. Here is a general outline to be used for all parameters discussed below:

(1) Press [FUNCTION/EXIT] to place the arrow next to the PARAMETER message.

(2) Use the TRANSP/DATA [+]/[–] buttons to select the parameter you wish to edit.



(3) Use the OCTAVE/VALUE [+]/[–] buttons to modify the value of the selected parameter.

(4) To leave the PARAMETER mode, press [FUNCTION/EXIT] again.

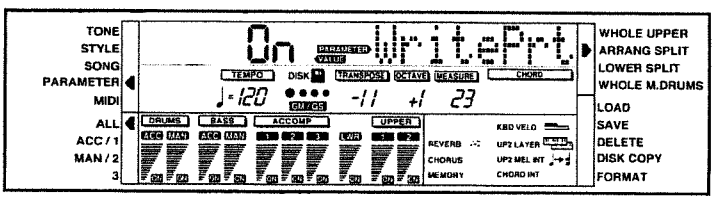
Note: All parameter settings (except Write Protect) can be saved to a Performance Memory. See "Writing and loading registrations – Performance Memories" on page 98.

Parameters

The following parameters are available in E-68 mode (i.e. when you can use the E-68's Arranger). If you need to select it, simultaneously press EFFECT [REVERB] and [CHORUS] to leave the GM/GS mode.

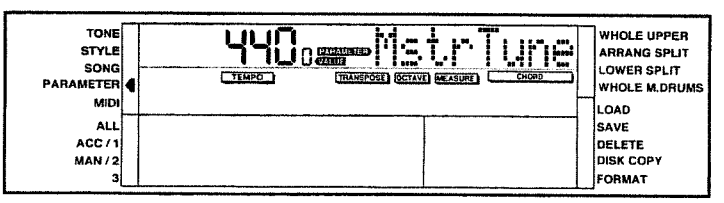
WritePrt (Write Protect)

(Off, On) This is not really a "parameter" and cannot be saved. Select Off whenever you wish to save your settings to a Performance Memory. See page 102 for more information.



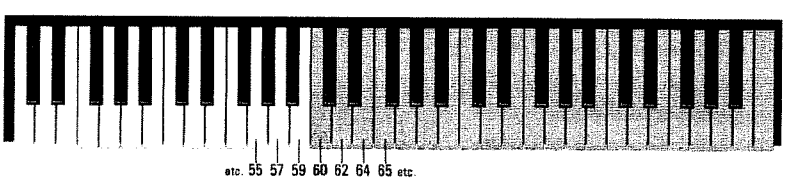
MstrTune (Master Tune)

(415.3~466.3) Allows you to change the E-68's overall tuning, which may be necessary when you accompany a singer, an acoustic instrument, or when you play to a recording on CD or cassette. See also page 66.



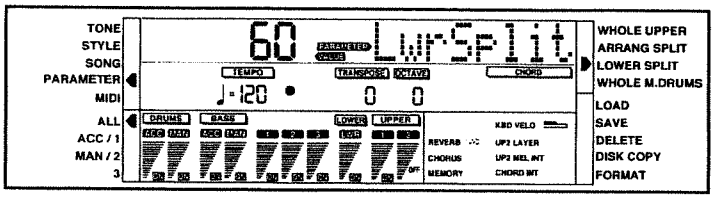
ArrSplit (Arranger Split)

(48~84) Use this parameter to set the split point for the ARRNG SPLIT Keyboard mode. The note you set here is the lowest note you can play with the Upper1/2 parts. See also page 50.



LwrSplit (Lower Split)

(48~84) Use this parameter to set the split point for the LOWER SPLIT Keyboard mode. The note you set here is the lowest note you can play with the Upper1/2 parts.



TrpMode (Transpose Mode)

This parameter allows you to select what parts (and sections) are affected by the Transpose interval you set using the TRANSP/DATA [+]/[–] buttons.

(1) **Only the internal (Realtime and Arranger) Parts are transposed.**

(2) **Only the Recorder (Song) parts are transposed.**

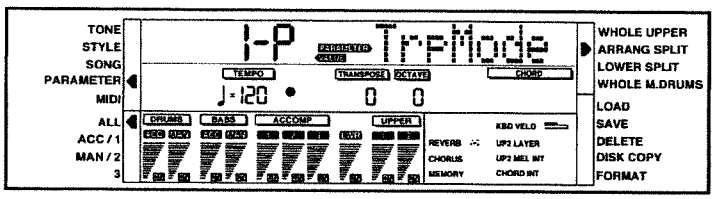
(3) **Only the note messages received via the E-68's MIDI IN or COMPUTER port are transposed.**

(4) **The internal (Realtime and Arranger) and Recorder Song parts are transposed.**
This is the default setting.

(5) **The internal parts and the note messages received via MIDI (or the COMPUTER connector) are transposed.**

(6) **The Song parts and the note messages received via MIDI (or the COMPUTER connector) are transposed.**

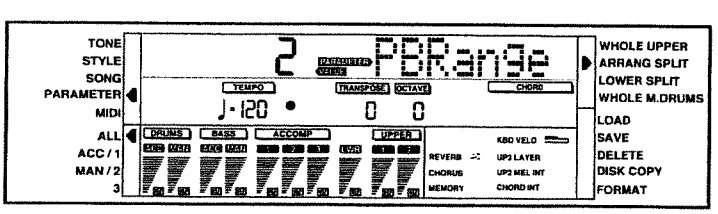
(7) **All sections (internal, Recorder, and MIDI) are transposed.**



TrpMode
① Int (Internal)
② MFP (Recorder)
③ Mid (MIDI)
④ I-P (Internal & Recorder)
⑤ I-M (Internal & MIDI)
⑥ P-M (Recorder & MIDI)
⑦ All

PB Range (Pitch Bend Range)

(0~24) This parameter allows you to set the interval you obtain by pushing the BENDER/MODULATION lever fully to the left or to the right. You can set this parameters in semitone steps, with a maximum of 24 semitones (2 octaves), the default value being "2", which should be o.k. in most situations.



***Note**: Pitch Bend is only available for the Upper1, Upper2, and M.Drums parts.*

RevType (Reverb Type)

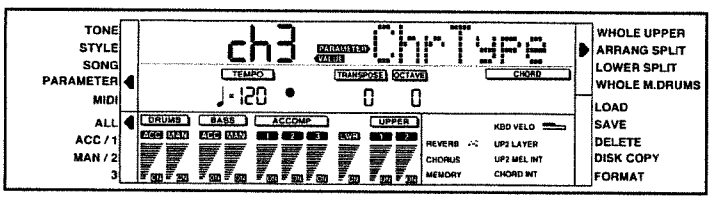
Use this parameter to select the desired kind of Reverb. There are four major types (Room, Hall, Plate, and Delay) with one or several variations. The best way to find out more about them is to experiment.
"Plate" works well for Rock'n'Roll songs. If you need an echo effect, select "Delay" (mono) or "Pan Delay" (stereo). Default value: hA2.

RevType
ro1 (Room 1)
ro2 (Room 2)
ro3 (Room 3)
hA1 (Hall 1)
hA2 (Hall 2)
PLE (Plate)
dLy (Delay)
Pdy (Pan Delay)

ChrType
ch1 (Chorus 1)
ch2 (Chorus 2)
ch3 (Chorus 3)
ch4 (Chorus 4)
Fbc (Feedback Chorus)
FGr (Flanger)
Sdy (Short Delay)
SdF (Short Delay w. Feedback)

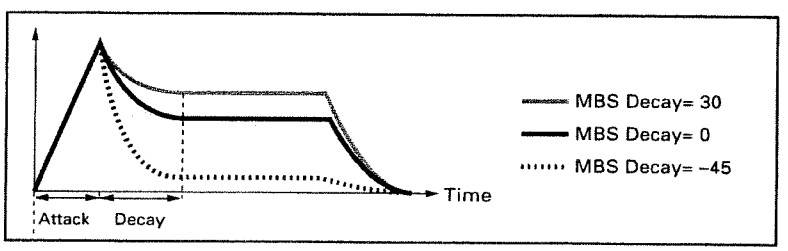
ChrType (Chorus Type)

This parameter allows you to specify the sound of the Chorus effect. Again, we could try to describe them, but you will get a better idea by selecting one after the other. Flanger or Feedback Chorus can be interesting for guitar Tones.
Again, there are two echo effects (Short Delay and Short Delay with Feedback), but they are much shorter than those available for the Reverb effect processor. Default value: ch3.



MBsDecay (Manual Bass Decay)

(+63~–64) This parameter allows you to shorten or lengthen the Tone you assign to the Manual Bass part. This setting is thus only useful for the LOWER SPLIT mode (as that is the only mode where the M.Bass part is available). Select a negative value to decrease the bass's sustain (shorten the sound), or a positive



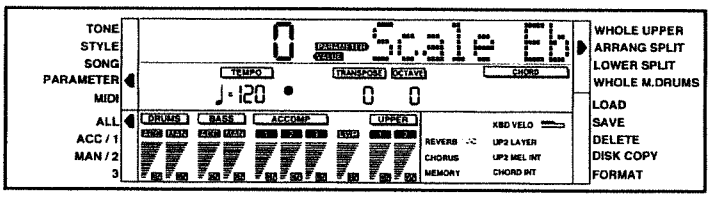
value to increase the bass's sustain.

Scale Tune (Scale C~Scale B)

(+63~–64) These parameters allow you to stray away from the usual semitone interval scale (used in western music) by programming quarter-tone scales (used in oriental music).

As you will notice, you can change the pitch of every note of one octave (C, C#, D, Eb, E...). The settings you perform here apply to all notes of the same name (i.e. to every C, every C#, etc.). Most of the time, you will probably select the value +50 or –50 as they correspond exactly to half a semitone up or down. Other settings are possible, though. Default value: 0.

Note: These Scale settings only apply to the Upper1 and Upper2 parts.



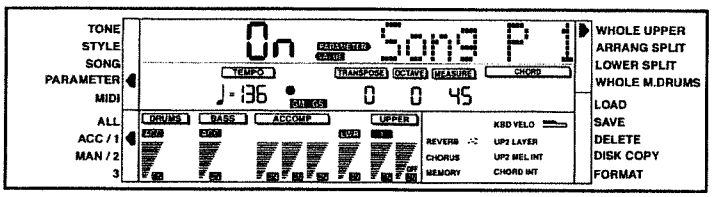
Song P1~Song P16

(On, Mtn, MtA) You probably remember we already discussed these parameters while talking about the Recorder (see "Muting a part (2)").

Select "On" for a Song part you want to hear, and "Mtn" or "MtA" for Song Parts you wish to mute. The difference between "Mtn" and "MtA" is of little importance for Song Parts that are not linked to a Realtime part, so choose whichever you like – if you have no intention of using both the E-68's Recorder (to play a few parts) and an external sequencer or computer with sequencing software (to play the remaining parts).

MtA

Mtn

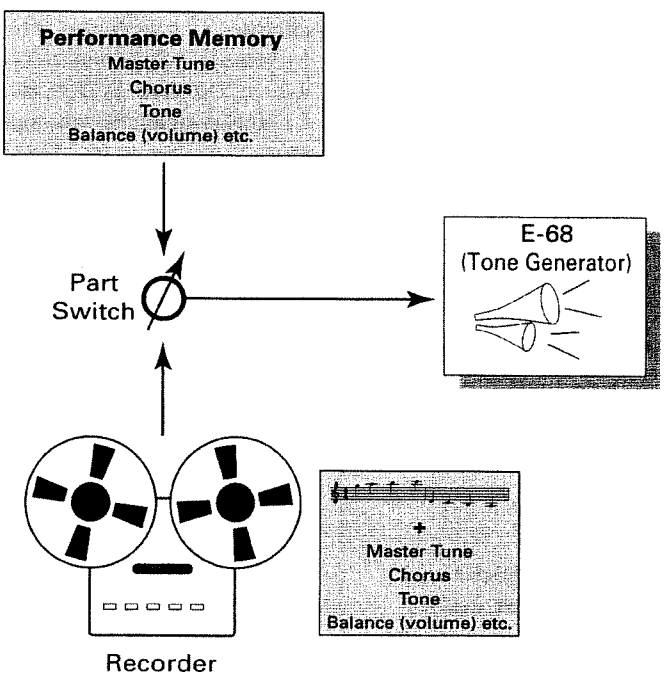


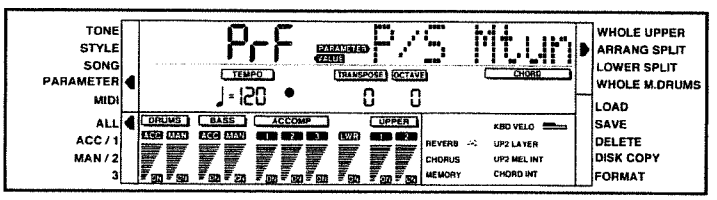
The Song Parts that have no link with the Realtime parts are: Song P1, 2, 5, 7~9, and 11~16.
For the remaining Song Parts (3, 4, 6, and 10, see the table on page 132), "Mtn" and "MtA" are meaningful. See page 136 for details. Default value: On.

Part Switches: P/S MTune~P/S MDR

The following parameters are called "part switches" because they allow you to choose whether the settings contained in a Recorder song may affect the settings currently in effect (SnG) or whether the Performance Memory or current panel settings (PrF) should take precedence.
More specifically, you can choose to filter the following Song settings:

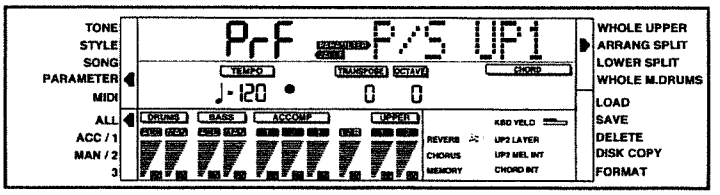
MTune: This is the Master Tune filter. The Master Tune setting is usually absent in Standard MIDI Files. There is, however, another important aspect that makes this parameter very meaningful indeed. Suppose you programmed a Performance Memory with a Master Tune setting of 442Hz (see page 66) because the violin player you wish to accompany prefers that tuning. Pressing [I◀ RESET], simply starting play back of the Recorder, or selecting the GM/GS mode would cause the Master Tune setting to revert to 440Hz (because that is the GM/GS default setting), so that you suddenly sound hopelessly flat with respect to the violin.
If, however, you select "PrF", your E-68 remains tuned at 442Hz – provided you changed the Master Tune setting by hand or selected a Performance Memory containing that Master Tune value. Default value: SnG.





Rev and **Chr**: There is probably no need to tell you that these two switches are filters for the Reverb and Chorus effects. Select PrF here if you do not like the effect settings of the song you are playing back. Default value: SnG.

UP1, UP2, LWR, MBS, MDR
These switches allow you to ignore the settings of the Song Parts linked to the Realtime parts. In fact, these *are* the link switches between the Song Parts and the assigned Realtime parts, and they apply to the Realtime parts. Selecting "PrF" breaks the link between the parts in question.
The most important parameters that can be protected from unwanted modification are: volume (Balance), Pitch Bend Range, Chorus, Tone selection, and Scale Tune (only for Upper1 and Upper2). Remember (see "About GM/GS" on page 136) that breaking the link is not enough, as that only means that the corresponding *Song Part* settings will not be used, leaving you with the default GM/GS settings. Default value: SnG.

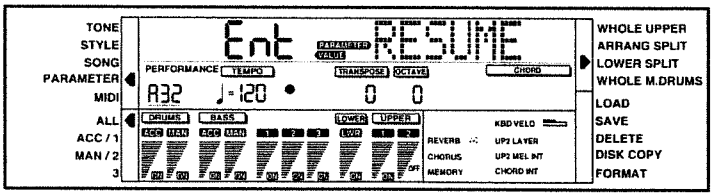


Note: Though you can only activate or deactivate the Chorus for the Upper1 and Upper2 parts on the E-68's front panel, the tone generator is capable of applying Chorus to any part. If the Standard MIDI File you loaded and then play back contains such settings, they will be faithfully carried out in SnG mode.

Resume

This function allows you to recall the default settings of all Parameter mode functions (i.e. the ones in effect when you switch on your E-68 without selecting a Performance). Press [ENTER] to recall the default settings. If, at that time, a Performance Memory

is selected, the dotted line appears below its address to indicate that your Performance Memory has been edited.



MIDI

MIDI is short for *Musical Instrument Digital Interface*. The word refers to many things, the most obvious being a connector type that is used by musical instruments and effects devices to exchange messages relating to the act of making music. Every time you play on the E-68's keyboard or you start the Arranger, your instrument will send MIDI data to one of its MIDI OUT ports. If you connect those ports to the MIDI IN port of another instrument, that instrument may play the same notes as one of the E-68's parts.

MIDI is a language that translates every action relating to music into binary digits that can be transferred via a MIDI cable. It is a universal standard, which means that musical data can be sent to and received by instruments of different types and manufacturers. Furthermore, MIDI allows you to connect your E-68 to a computer or hardware sequencer.

MIDI in general

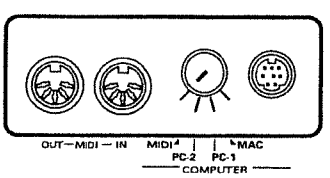
Requirements for receiving and transmitting MIDI data

MIDI connectors or Computer connector

MIDI messages are transmitted and received using three connectors and special MIDI cables:

MIDI IN: This connector receives messages from other MIDI devices.

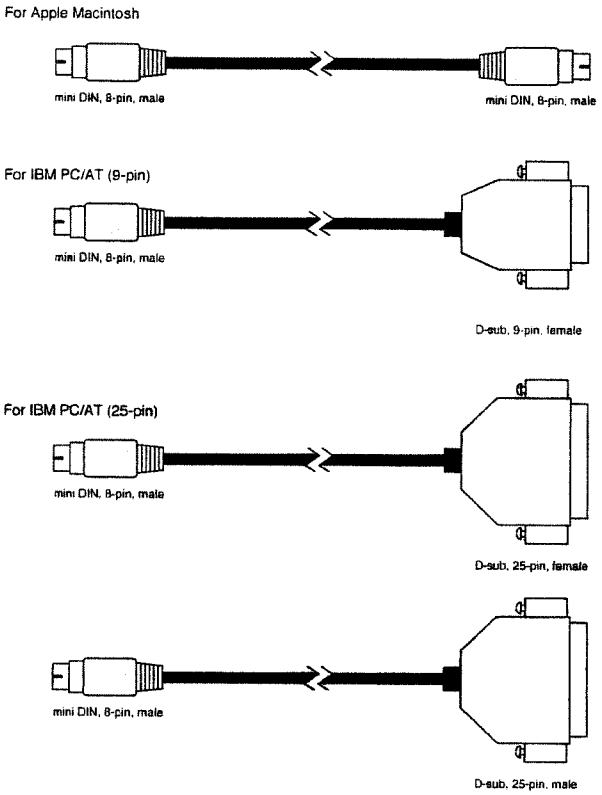
MIDI OUT: This connector transmits MIDI messages generated on your E-68.



COMPUTER: This connector both receives and transmits MIDI messages. Select the position that corresponds to the type of computer you use. If you use an IBM-PC® compatible computer, select PC-2. If you use a NEC computer (a computer sold in Japan), select PC-1. Select MAC for a Macintosh computer. If you prefer to rely on the good old MIDI connectors, set the COMPUTER selector switch to MIDI.

Note: *If you intend to use the COMPUTER connector with a PC, ask your Roland dealer for a driver disk (the same driver as for the Sound Canvas SC-7). Alternatively, you can download it from the Roland site on the Internet: [http://www.rolandUS.com].*

Note: *You also need a special computer cable to establish a proper connection with your computer. Depending on the computer you use, you need one of the following cables: RSC-15APL (Macintosh), RSC-15AT (9-pin PC), or a 25-pin cable (available from your computer dealer).*



Explaining MIDI in great detail lies beyond the scope of this Owner's Manual. There is a booklet called *MIDI Guide* available from your Roland dealer that tells you the ins and outs of MIDI.

Channels

MIDI can simultaneously transmit and receive messages on 16 channels, so that up to 16 instruments can be controlled. Nowadays, most instruments –like your E-68– are multitimbral, which means that they can play several musical parts with different sounds.

That concept is not difficult to understand. Just think of your

E-68: it is equipped with an Arranger capable of playing the drums, the bass, and up to three accompaniment parts, while at the same time allowing you to play up to two Realtime parts (Upper1, Upper2, Lower, and Manual Bass).

Tip: Other controllers that can be used include trigger-to-MIDI instruments (TD-7, TD-5, SPD-11, Octapad II), guitar-to-MIDI instruments (GR-1, GR-09, GI-10) as well as any kind of "to MIDI" controller (wind, MCR-8 fader unit).

Note: All E-68 parts are set to receive MIDI messages. If they do not seem to respond to the messages you send from the external controller, you should check whether the external controller's MIDI OUT is connected to the right MIDI INput of your E-68.

How to edit the MIDI parameters (general procedure)

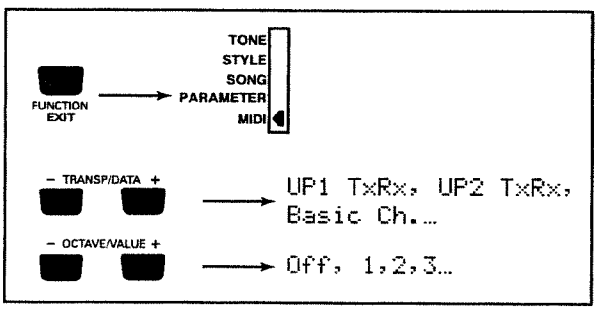
You can edit the E-68's MIDI parameters via the display. Here is a general outline to be used for all parameters discussed below:

(1) Press [FUNCTION/EXIT] to place the arrow next to the MIDI message.

(2) Use the TRANSP/DATA [+]/[–] buttons to select the parameter you wish to edit.

(3) Use the OCTAVE/VALUE [+]/[–] buttons to modify the value of the selected parameter.

(4) To leave the MIDI mode, press [FUNCTION/EXIT] again.



MIDI in E-68 mode (GM/GS off)

Again, this introduction does not cover everything that could be said about MIDI. It is merely intended to give you an idea of

what you can do and to encourage you to explore the countless possibilities of MIDI.

Note: There is no need to save these settings as the E-68 memorizes them automatically. To reset all MIDI parameter settings, use the Resume function (see page 188).

Receive (Rx)and Transmit (Tx) channels

Though it is perfectly possible to change the transmit and receive channels of all parts, we recommend you only do so if there is no other way to solve your MIDI problems. The default values correspond indeed to a tacit Roland standard and are therefore shared by all recent E, G, and RA series instruments. Besides, these settings guarantee perfect GM/GS compatibility.

See the table for the first chunk of parts whose MIDI channel(s) you can set.

Explanation:

(1) **Name that appears on the display. "TxRx" means "MIDI transmit and receive channel", 'Rx" means "MIDI receive channel", i.e. those parts can only receive MIDI messages.**

(2) **Full name of that part.**

(3) **Possible settings. Select Off if you don't want a part to receive (RX parts) and/or transmit (all other parts in the table) MIDI messages.**

(4) **Default value.**

(5) **Changing the default value has the same effect for the Song Part whose name appears in this row.**

About the RX parts:
Your Intelligent Keyboard is equipped with three parts that can only be played via MIDI. Though they work the same as the E-68's

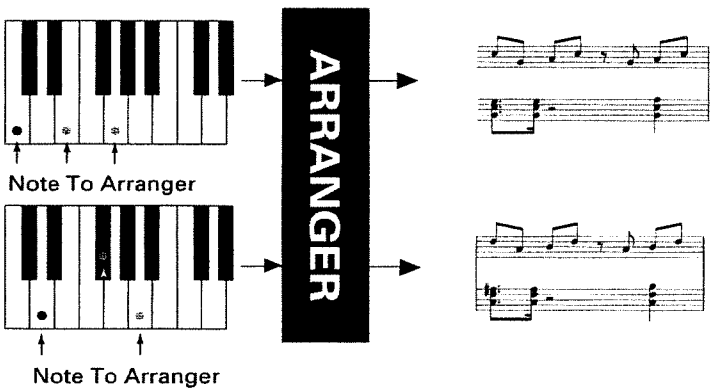
①	②	③	④	⑤
UP1 RxRX	Upper 1	Off, 1~16	4	↔ Song Part 4
UP2 RxRX	Upper 2	Off, 1~16	6	↔ Song Part 6
LWR RxRX	Lower	Off, 1~16	11	↔ Song Part 11
MBS RxRX	Manual Bass	Off, 1~16	12	↔ Song Part 12
MDR RxRX	Manual Drums	Off, 1~16	16	↔ Song Part 16
ADR RxRX	Accompaniment Drums	Off, 1~16	10	↔ Song Part 10
ABS RxRX	Accompaniment Bass	Off, 1~16	2	↔ Song Part 10
AC1 RxRX	Accompaniment 1	Off, 1~16	7	↔ Song Part 7
AC2 RxRX	Accompaniment 2	Off, 1~16	8	↔ Song Part 8
AC3 RxRX	Accompaniment 3	Off, 1~16	9	↔ Song Part 9
RX1	Receive only 1	Off, 1~16	1	↔ Song Part 1
RX2	Receive only 2	Off, 1~16	3	↔ Song Part 3
RX3	Receive only 3	Off, 1~16	5	↔ Song Part 5

Realtime parts, you cannot select them on your E-68 or play them via the keyboard. You could take advantage of those RX parts when using a computer or hardware sequencer for sequencing in E-68 mode (i.e. without selecting the GM/GS mode). Another way to use these parts would be to connect the MIDI OUT of a MIDI master keyboard (such as an A-33 or A-90) to the E-68's MIDI IN port, split the master keyboard and control two of the E-68's RX parts by playing on the master keyboard.

NTA1 Rx (Note-to-Arranger 1 Rx Channel)

NTA is short for *Note to Arranger*, or the notes you play in the chord recognition area to feed the Arranger with chord information. These notes can also be received via MIDI. If you want the Arranger to use these notes, you must send them on the MIDI channels assigned to the NTA function.

You probably noticed the plural in "channels". There are indeed two NTA receive channels so that you could use the E-68 as realtime arranger module for a MIDI accordion or any other MIDI instrument capable of transmitting on two channels.



Tip: You could also take advantage of these two NTA channels to control the Arranger from two external master keyboards or a PK-5 MIDI bass pedal unit.

There is no Tx parameter for the NTA level. The notes you play on the E-68's keyboard are indeed transmitted to the Arranger, from there to the Arranger parts, and used to play the accompaniment in the right key. Since all Arranger notes are transmitted via

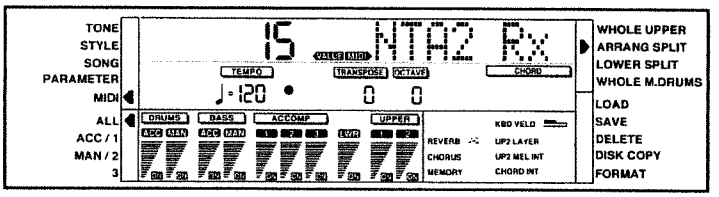
MIDI, there is no need to send the NTA notes separately.

Before setting the (or just one) NTA receive channel, see the manual of your external MIDI controller to find out which channel(s) it transmits on.

Possible values: Off, 1 ~ 16 (may not be the same as NTA2).
Default value: 14.

NTA2 Rx (Note-to-Arranger 2 Rx Channel)

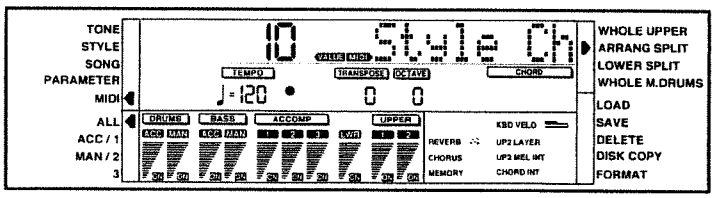
Possible values: Off, 1 ~ 16 (may not be the same as NTA1).
Default value: 15.



Style Ch (Style Select TxRx Channel)

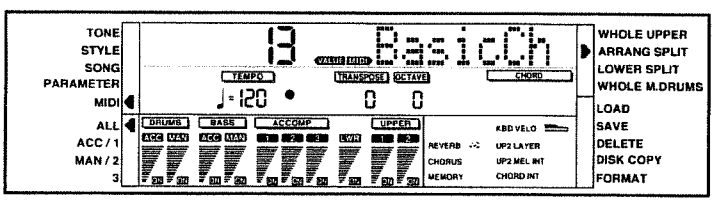
As its name implies, the Style Select channel is used to receive and transmit program changes that cause the E-68 or the receiver to select another Music Style. Note that the Card Style memories can also be selected via MIDI.

Possible values: Off, 1 ~ 16.
Default value: 10.



Basic Ch (Basic TxRx Channel)

The Basic Channel is the MIDI channel used for receiving and transmitting program change and bank select messages relating to the selection of Performance Memories. In other words, every time you select a Performance Memory on your E-68, it will send a series of MIDI messages to the MIDI OUTput and on the MIDI channel you select here. Likewise, if the E-68 receives a series of messages (bank select and program change) on the Basic Channel, it will select the Performance Memory that is



assigned to the numbers contained in the received MIDI messages.
Possible values: Off, 1 ~ 16.
Default value: 13.

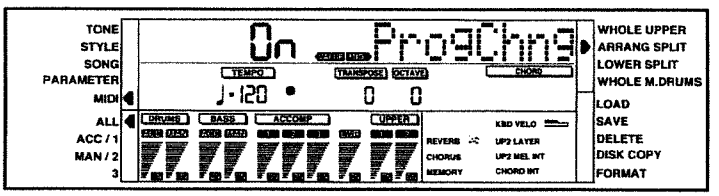
MIDI data filters

The following parameters allow you to decide whether or not certain MIDI message types should be received and transmitted.

ProgChng (Program Change)

This filter allows you to enable (On) or disable (Off) the transmission and reception of Program Change messages. These messages are used to select Tones, Styles, or Performance Memories.
Possible values: Off, On. Default value: On.

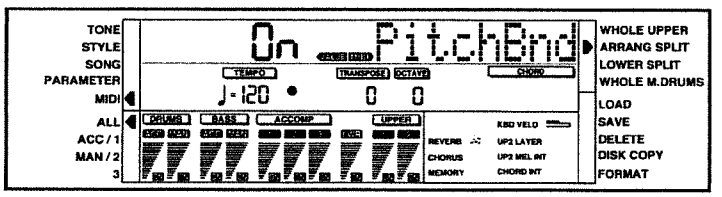
Note: *The setting of this parameter also applies to the parameter of the same name in GM/GS mode (see page 190).*



PitchBnd (Pitch Bend)

This filter allows you to enable (On) or disable (Off) the transmission and reception of Pitch Bend messages. These messages are used to temporarily increase or decrease the pitch of the notes you play (Upper1, Upper2 or Manual Drums parts).
Possible values: Off, On. Default value: On.

Note: *The setting of this parameter also applies to the parameter of the same name in GM/GS mode (see page 190).*



Modulatn (Modulation)

This filter allows you to enable (On) or disable (Off) the transmission and reception of Modulation messages. These messages are used to add vibrato to the notes you play (control change CC01).

Possible values: Off, On. Default value: On.

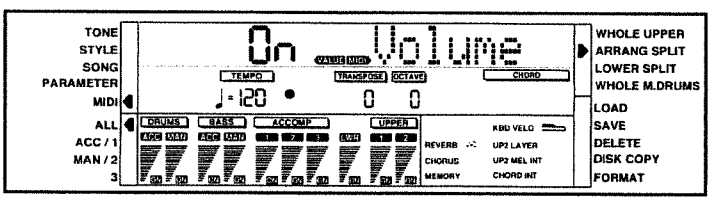
Note: The setting of this parameter also applies to the parameter of the same name in GM/GS mode (see page 190).

Volume

This filter allows you to enable (On) or disable (Off) the transmission and reception of volume messages (control change CC07).

Possible values: Off, On. Default value: On.

Note: The setting of this parameter also applies to the parameter of the same name in GM/GS mode (see page 190).

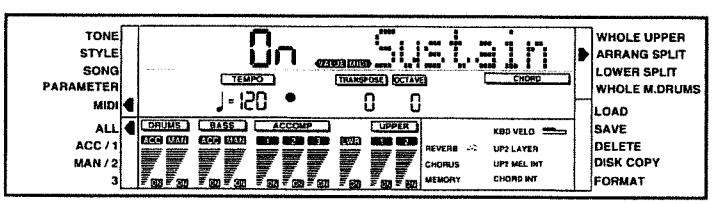


Sustain (Hold)

This filter allows you to enable (On) or disable (Off) the transmission and reception of Hold messages (control change CC64).

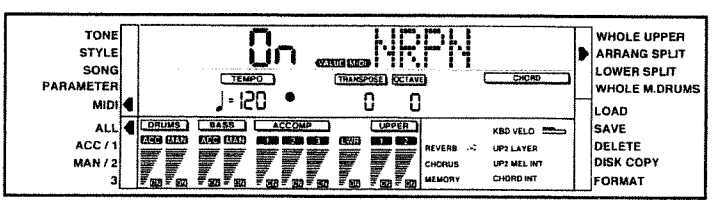
Possible values: Off, On. Default value: On.

Note: The setting of this parameter also applies to the parameter of the same name in GM/GS mode (see page 190).



NRPN (Non-Registered Parameter Number)

This filter allows you to enable (On) or disable (Off) the transmission and reception of NRPN messages. These messages are only understood by GS



compatible tone generators and allow you to edit certain parameter settings via MIDI.

Possible values: Off, On. Default value: On.

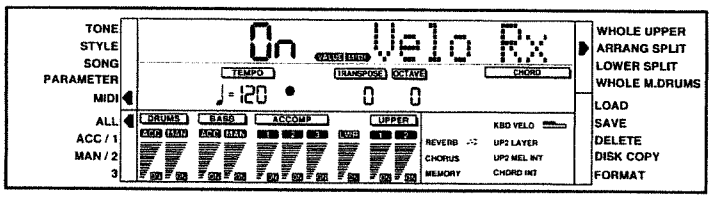
Note: The setting of this parameter also applies to the parameter of the same name in GM/GS mode (see page 190).

Velo Rx (Receive Velocity)

This filter allows you to enable (On) or disable (Off) the reception of Velocity messages. The function of this parameter is identical to that of the KEYBOARD [VELOCITY] button but it only applies to note messages received via MIDI.

Possible values: Off, On. Default value: On.

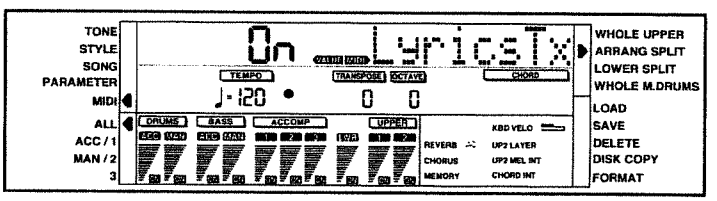
Note: The setting of this parameter also applies to the parameter of the same name in GM/GS mode (see page 190).



Lyrics Tx (Transmit Lyrics messages)

As stated earlier, the E-68 accepts Lyrics messages contained in Standard MIDI Files you load. It cannot display them but it allows you to transmit them to a device capable of displaying Lyrics messages (such as the Roland LVC-1). This filter allows you to enable (On) or disable (Off) the transmission of Lyrics data.

Possible values: Off, On. Default value: On.



Synchronization parameters

Sync Rx (MIDI Synchronization)

Use this parameter to specify how the E-68 should be synchronized (as slave) to an external MIDI

sequencer, computer, drum machine, etc. Please note that synchronization is only possible when you connect the external device's MIDI OUT port to the E-68's MIDI IN port (or if you use the COMPUTER connector).

Possible values:

Int: In this case, the E-68 is not synchronized with other MIDI devices. It is thus impossible to start/stop it via MIDI.

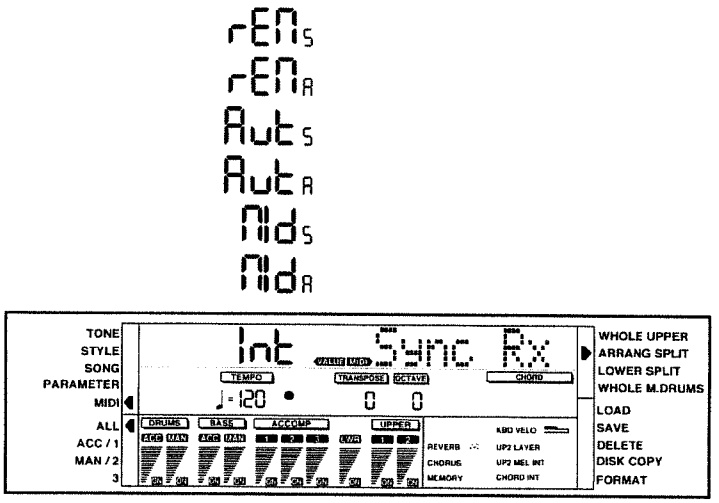
MId A: This synchronization mode does two things at a time: it synchronizes both Arranger playback and the Recorder during recording in response to Start/Stop and MIDI Clock messages. In fact, after pressing the [REC●] button, you have to start the external device to cause the Recorder to start. At the same time, Arranger playback will be started, making this mode ideal for recordings involving both the Arranger and the E-68's Recorder.

Note: *In MId A mode, you can neither start the Arranger nor the Recorder with the E-68's front panel buttons. Recorder playback, however, can still be launched on the E-68 and will not sync to MIDI Clock messages.*

MId S: In this case, only the Recorder will be synchronized. This synchronization mode bears both on Recorder playback and recording, meaning that the Recorder can only be started with MIDI Clock messages received from an external unit. Also, the GM/GS mode must be on.

Note: *The Recorder will only start when MIDI Clock messages are received in GM/GS mode.*

Aut A: This mode is similar to the MId A mode, the only difference being that Arranger playback and Song recording are only synchronized if the E-68 receives a MIDI Start and MIDI Clock messages. Both Arranger



playback and Song recording can still be launched on the E-68 itself. Thus, the E-68 "knows" when to synchronize to external MIDI Clock messages and when to follow its own tempo.

Aut S: This mode is similar to the MIDI2 mode, the only difference being that Song recording and playback are only synchronized if the E-68 receives MIDI Start and MIDI Clock messages. As long as no MIDI Clock messages are received, the Recorder will follow its own (or your) tempo.

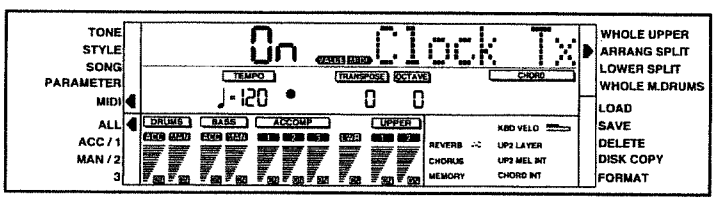
rEM A: The Arranger and Recorder wait for a start message to start playback or recording at its own tempo. As soon as the E-68 receives a stop message, Arranger playback and/or Song recording will stop.

rEM S: This is the same as rEM A, except that it applies to Song playback and recording (and thus to the GM/GS mode). The Arranger is not affected by Start/ Stop messages received via MIDI.

Clock Tx

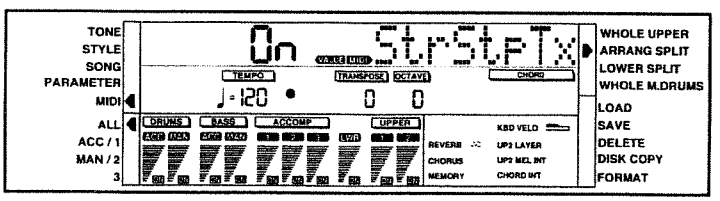
This option allows you to determine whether or not the Arranger and Recorder send Clock messages when you start them.

Possible values: Off, On. Default value: On.



StrStpTx (Start/Stop/Continue)

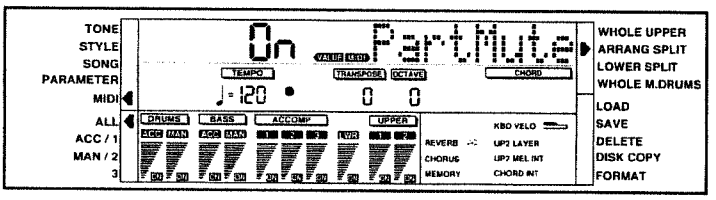
This option allows you to determine whether or not the Arranger and Recorder send Start/Stop/ Continue messages when you start them. Select Off when you wish to control the tone generator of a MIDI organ etc. without starting its automatic accompaniment every time you



start Arranger or Recorder playback on the E-68.
Possible values: Off, On. Default value: On.

Song Pos P (Song Position Pointer)

The E-68's Recorder also sends Song Position Pointer messages. Select Off here if you'd rather the Recorder did not do that.
Possible values: Off, On. Default value: On.



PartMute

The Part Mute parameter allows you determine what happens when you mute a part (see "Part Balance and Part Mute" on page 140). One thing you know will happen is that the part in question no longer sounds when you play on the keyboard. What you do *not* see, however, is whether a muted part still sends MIDI data. PartMute allows you to specify whether or not a muted part should go on sending MIDI messages to MIDI OUT:
Int: A muted part can no longer be played via the E-68's keyboard or Recorder but continues to send MIDI messages to the MIDI OUTput.
All: A muted part can no longer be played via the E-68's keyboard or Recorder and no longer sends MIDI messages.
Default value: All.

Local (On, Off)

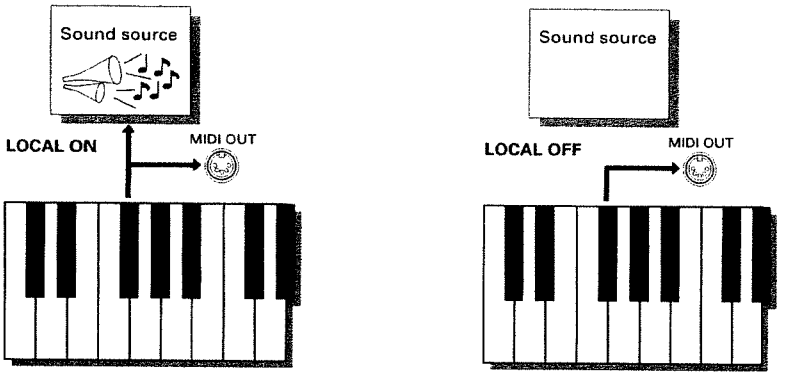
The Local parameter allows you to establish or remove the connection between the E-68's keyboard/Recorder and the internal tone generator.
When set to On (factory setting), playing on the E-68's keyboard or

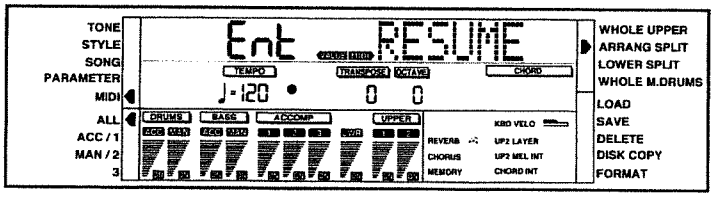
playing back a Recorder song will cause the corresponding notes to sound. If you select Off, the corresponding MIDI are no longer sent to the internal tone generator. Local doesn't, however, interfere with the transmission of the corresponding MIDI data to the MIDI OUTput.

Set Local to On (default setting), whenever you want the E-68 respond to the notes you play on the keyboard or the notes played by the Recorder. Setting Local to Off, on the other hand, means that the neither the keyboard nor the Recorder control the internal tone generator. When working with a sequencer equipped with a Soft Thru (MIDI echo) function – and *only* if (i) you connect the E-68's MIDI IN and OUT connectors to the external sequencer or computer, and (ii) use the E-68 as MIDI master keyboard for sequencing – you may have to set this parameter to Off to avoid that each note is sounded twice (producing an unpleasant sound called MIDI loop). In all other cases, select On.

Possible values: Off, On. Default value: On.

Note: The setting of this parameter is not memorized when you switch the E-68 off.





RESUME

Select this function to recall the E-68's factory MIDI settings (both for the E-68 and the Recorder modes). Press [ENTER]. After showing the "Complete" message, the display returns to the RESUME message. Press [FUNCTION/EXIT] to leave the MIDI mode.

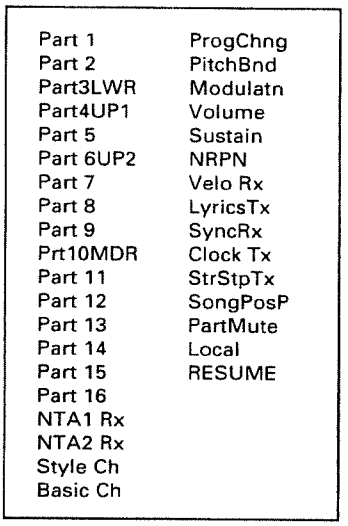
Note: There is no "Sure?" question that gives you time to think. Only press [ENTER] if you are certain you want to recall ALL factory MIDI settings.

MIDI in Recorder mode (GM/GS on)

Except for the part names and their numbers (Part 1~16), the GM/GS MIDI parameters are similar to those of the E-68 mode, except that here you can set the transmit and receive channels of the Recorder Song Parts. As pointed out earlier, doing so will also change the channel setting of the corresponding E-68 part.

One final remark: by default, Song Part 1 is assigned to MIDI Channel 1, Song Part 2 to MIDI Channel 2, etc.

For your reference, see the illustration for the available parameters.



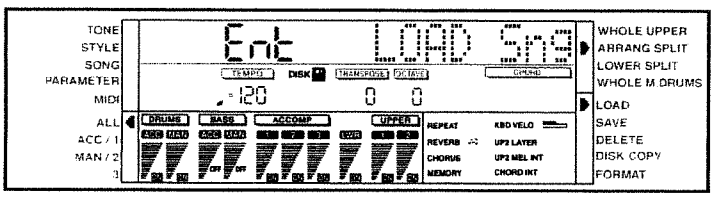
Housekeeping

Disk mode

The Disk mode allows you to save the song of the internal Recorder to disk, load another song (only one at the time), to save and load your Performance memories to disk, to delete files on a floppy disk, and to copy disks.

As stated said earlier, you are free to use 2DD or 2HD disks. It is even possible to use DOS formatted disks, though that may somewhat slow down the Disk operations.

Whenever the disk drive writes data to or reads data on disk, the Disk icon is displayed. DO NOT REMOVE THE FLOPPY DISK WHILE THIS ICON IS DISPLAYED as that may damage both the disk drive and the disk (so that it becomes unreadable).



How to select the Disk functions (general procedure)

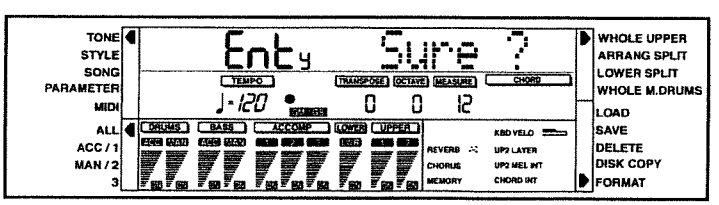
(1) **Press the [DISK] button as many times as necessary to place the Disk arrow next to the desired function (Load, Save, Delete, etc.).**

(2) **If available, select another function of that level using the TRANSP/DATA [+]/[–] buttons.**

(3) **Press [ENTER] to confirm and execute the operation you selected.**

(4) **When saving files or formatting a disk, you have to confirm the "Sure?" question.**

Press [ENTER] to execute the function. Otherwise, either press [FUNCTION/EXIT] to cancel and leave the Disk mode, or press



OCTAVE/VALUE [–] to select "n", followed by [ENTER]. In that case, you cancel the function *without* leaving the Disk mode, so that you can either change the name of the song file you are about to save, or select another disk function.

(5) **To leave the Disk mode when you are finished, press [DISK] several times, or press [KBD MODE] or [FUNCTION/EXIT].**

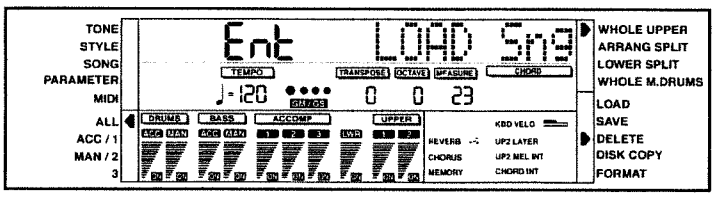
Load Sng (Load Song)

Use this function to load one of your own songs, or a Standard MIDI File from disk.

After pressing [ENTER], use the OCTAVE/VALUE [+]/[–] buttons to select the song file you wish to load. Then press [ENTER] again to load the song.

Note: *Loading a new song will replace the one that currently resides in the E-68's internal memory. If you wish to keep that song, save it to disk first (see page 198).*

Note: *In step (2) on page 192, you may have to press TRANSP/DATA [–] to select Load Sng.*



Possible error messages when using Load Song

At times, the desired file is not loaded right away (or at all). Instead, the display shows an error message. Except where indicated otherwise, the message in question disappears after a few seconds. Here is what they mean:

No Disk
You forgot to insert a disk into the drive. Do that now.

No Files
The disk you inserted doesn't contain files of the type the E-68 expects (here: song files).

No Format
The disk you inserted is not formatted or formatted for another device (i.e. neither for a PC nor for the E-68).

Disk Err
The disk you inserted is probably damaged. Use another disk.

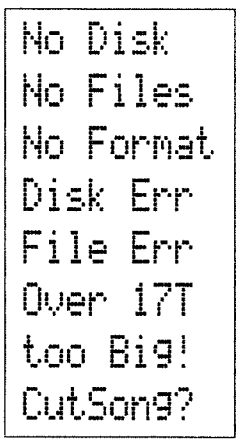
File Err
The song file you are trying to load is damaged. Select another file.

Over 17T
The song file contains more than 17 tracks (and is therefore neither Standard MIDI File Format 0 nor Format 1 compatible. Select another file.

tooBig!
The song file you are about to load is too big for the E-68's RAM memory. Since it is a Format 1 Standard MIDI File, you cannot load it.

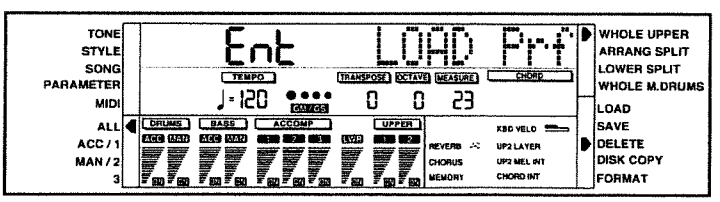
CutSong?
The song file you are trying to load is too big for the E-68's RAM memory, yet you can decide to load only that part that fits into the E-68's memory. Press [ENTER] to partially load the song file, or OCTAVE/VALUE [–] followed by [ENTER] to cancel this operation without leaving the disk mode. In the latter case, try loading another song.

Note: It is impossible to save partially loaded songs to disk, so make up your mind whether you want to listen to it and then load another song, or whether to load another song instead.



Load Prf (Load Performance Memory Set)

Use this function to load a set of 64 Performances. Performance Memories are indeed saved to and loaded from disk as "sets", i.e.



chunks of 64 settings. You cannot save or load Performance Memories one by one.

Note: Loading a new Performance Set will erase the settings in the internal Performance Memories. If you wish to keep those settings, save them to disk before loading a new set (see below).

Note: In step (2) on page 192, you may have to press TRANSP/DATA [+] to select Load Prf.

After pressing [ENTER], use the OCTAVE/VALUE [+]/[–] buttons to select the Performance Set file you wish to load. Then press [ENTER] again to load the data.

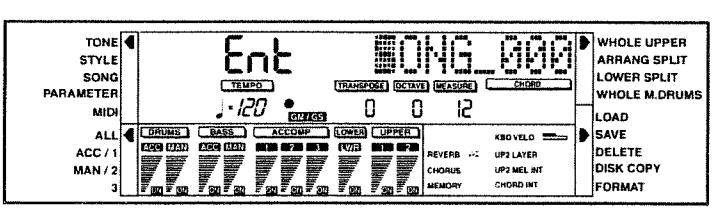
Possible error messages when using Load Prf

No Disk, No Files, No Format, Disk Err.
See "Possible error messages when using Load Song" on page 194 for an explanation of these messages.

Save Sng (Save Song) and Save Prf (Save Performance Set)

There are no hard-and-fast rules for which data to save to which floppy but we recommend that you work with at least two disk sets: one for your Recorder songs and another one for Performance Memories.

The two Save functions are very similar to one another. *Save Sng* allows you to save the Recorder song in the E-68's internal memory to disk, while *Save Prf* can be used to make a backup of your Performance Memories on disk as a set of 64 memories.

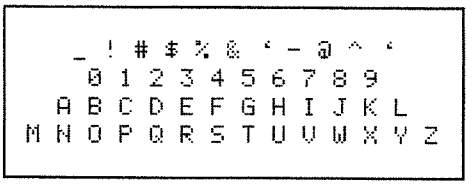


After pressing [ENTER] to confirm your intention to save the song or Performance Memory Set, you are given the opportunity to name the file your are about to save.

You could use the name selected by default (SONG_001 or PERF_001) but it is probably wiser to program a meaningful name.

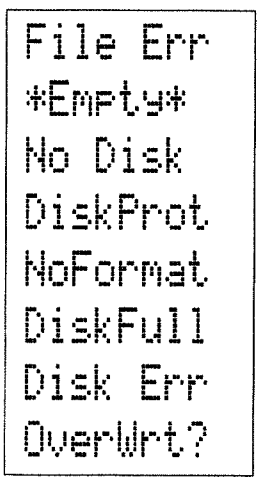
Use the TRANSP/DATA [+]/[–] buttons to move the blinking cursor to the position you wish to assign another character to, and select another character using OCTAVE/VALUE [+]/[–]. Finally, confirm by pressing [ENTER]. See the illustration for the available characters.

The display now shows the "Sure?" message. Confirm by pressing [ENTER], or use OCTAVE/VALUE [–] to select "n" and then press [ENTER] if you changed your mind.



Possible error messages when using a Save function

At times, an error message appears on the display when you select a Save function. Here is what they mean:



File Err
The song file you are trying to save is damaged.

Empty
You have neither recorded nor loaded a song that could be saved. Do that first.

No Disk
You forgot to insert a disk into the drive. Do that now.

Disk Prot
The floppy disk is write protected. Move its tab to the WRITE position to "close the window".

No Format
The disk you inserted is not formatted or formatted for another device (i.e. neither for a PC nor for the E-68).

Disk Full
There is no more room on the disk you inserted into the drive. Use another disk.

Disk Err
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.

OverWrt?
The name you specified already exists on the disk you inserted into the drive.

Use OCTAVE/VALUE [–] to select "n" (No) and press [ENTER]. The display now returns to the previous message.

Try saving the data again, taking care to use another number (adding at number at the end already qualifies as "another name".

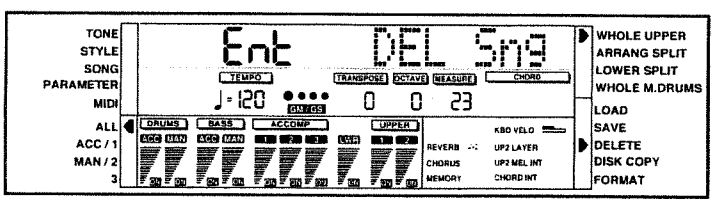
If you are sure you want to replace the file on disk with the new data, however, press [ENTER] right away (without selecting "n").

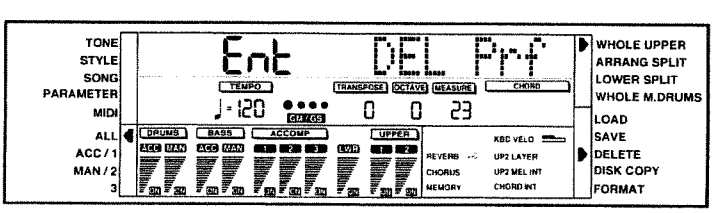
Del Song (Delete Song) and Del Prf (Delete Performance Memory Set)

These two functions (accessed by placing the Disk mode arrow next to DELETE) allow you to delete a Song or Performance Memory Set file from the disk you insert into the drive.

Deleting disk files means that they will no longer be on that disk. You should exercise great caution when using this function because there is no Undo or Recall function. Deleting files on disk can, however, be useful to make room for new files. Be sure to have at least one backup of the file or set you are about to delete because you never know...

(1) **Insert the disk that contains the file to be deleted into the drive.**





(2) Press [ENTER].
The E-68 now reads the disk to locate all Song (or Performance Memory Set) files.

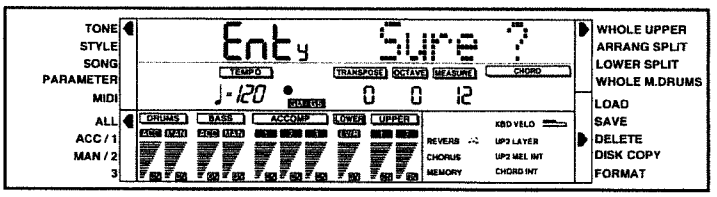
(3) Use the OCTAVE/VALUE [+]/[–] buttons to select the Song or Performance Memory Set file to delete.

(4) Press [ENTER].

The "Sure?" question appears on the display. Take your time to make up your mind whether you really want to delete the file in question. If you press [ENTER] again without selecting "n", that file will be gone forever.

(5) Use OCTAVE/VALUE [–] to select "n" (No) and press [ENTER]. The display now returns to the previous message.

If you are sure you want to delete the file on disk, however, press [ENTER] right away (without selecting "n").



Error messages when using Del Song or Del Prf

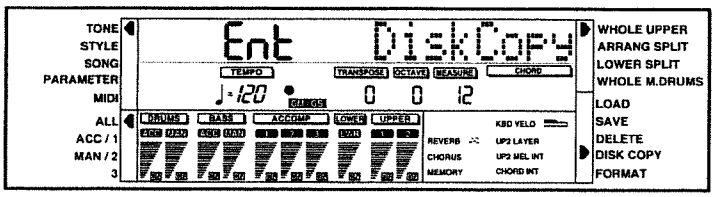
No Disk, No Files, NoFormat, DiskProt, Disk Err
See page 200.

DiskCopy (Copying the contents of an entire disk)

This function allows you to make backup copies of important disks.

WARNING: The Disk Copy function takes advantage of the RAM memory and erases your Recorder song in the E-68's internal memory. Before using Disk Copy, save your song to disk if you haven't already done so (see page 198).

Disk Copy copies all files of the Source disk (see below) to the Destination disk.



(1) **Press the [DISK] button as many times as necessary to place the Disk mode arrow next to the DISK COPY message.**

The E-68 tells you something you already know but may tend to forget at times (see the illustration).

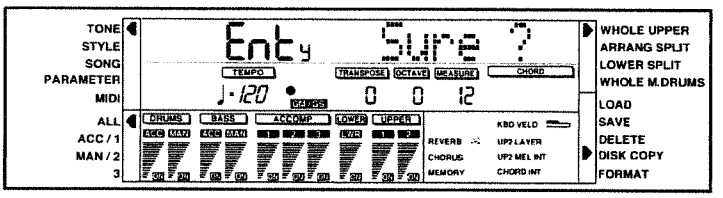
Copying Songs from commercially available Standard MIDI Files is ok as long as *you keep* the copy (as safeguard against possible disk errors). Under no circumstances, however, may you give copies of copyright-protected material to your friends.

Also, the display tells you that the Disk Copy function needs the available RAM memory – i.e. the memory set aside for the Recorder songs.

Be aware that really activating the Disk Copy function (which you haven't done so far), erases the song in the internal memory. Save it to disk before proceeding.

```
Improper use of copy infringes Copyright!! For
personal back-up use only! Song will be erased.
```

The above message is followed by the "Sure?" message.

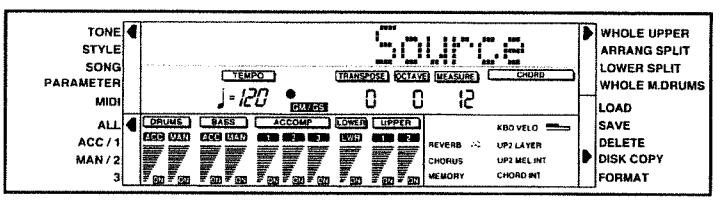


(2) **If you are sure you wish to make a backup copy of a disk, press [ENTER].**

Otherwise, leave the Disk mode by pressing [FUNCTION/EXIT], or use OCTAVE/VALUE [–] to select "n" (No) and press [ENTER] to cancel this function without leaving the Disk mode.

The display now asks you to insert the original (or Source) disk into the drive.

Before doing so, you must write-protect it, otherwise the display tells you to do so (No Prot). In that case, remove the disk from the drive, set its Write Protect tab to the PROTECT position ("to open the little window"), and insert the disk into the drive again.



(3) **Insert the original (Source) disk into the drive.**

The display now tells you that your E-68 is reading the first part of the data to be copied. Depending on the number of files on disk, you may encounter this message several times.

When the first part is loaded, the display switches to the "Destinat" message.

The message asks you to insert a blank disk into the disk drive. That disk will contain a copy of the original data and is therefore called Destination Disk.

(4) Remove the Source disk from the drive and insert the Destination disk.

If the Destination disk isn't formatted, you are given the opportunity to do so now ("Format?").

Press [ENTER] to format the Destination disk. If you change your mind about formatting that particular disk, press OCTAVE/ VALUE [-] to select "n" (No), and then press [ENTER]. This takes you back to the "Destinat" message. Insert another disk.

Note: Always use a blank Destination disk because all data on the Destination disk will be erased.

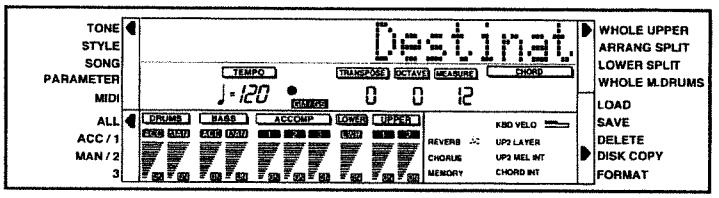
If you press [ENTER], the display tells you the Destination disk is being formatted ("Formatng"), whereupon the "Complete" message is displayed.

Next, there "Writing" message appears to inform you that the first (or entire) data chunk is being copied to disk.

As stated above, the Source message may be displayed again. If so...

(5) Remove the Destination disk from the drive and proceed with step (3) until the display tells you: "Complete".

The display now returns to the Disk Copy message.



Possible error messages when using Disk Copy

No Prot
The Source disk is not protected. Remove it from the drive and set the Write Protect tab to the PROTECT position.

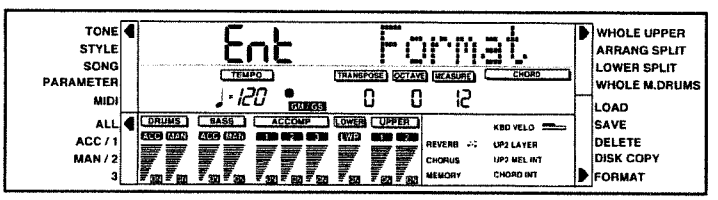
NoFormat
The Destination disk is not formatted. Press [ENTER] to format it an to continue.

DiskErr, DiskProt
See "Possible error messages when using a Save function" on page 200.

Incompat
The disk you inserted after removing the Source disk is not the one you inserted at the first Destinat prompt. Insert the proper disk.

Format

We already discussed this function when we showed you how to save your songs to disk. See therefore "Formatting a disk" on page 116.



Initializing your E-68 (Factory)

After working extensively with your E-68, you may want to recall the original factory settings. This is not indispensable because you could use the Resume functions in Parameter and MIDI modes to restore the original Parameter and MIDI settings. Initializing your E-68 means that all Performance Memory and MIDI settings will be replaced with the original settings – except for the Recorder song that will be empty after initializing your E-68.

Here is how to initialize your E-68:

(1) **Power off your E-68.**

(2) **Hold down the [WRITE] button while turning your E-68 back on again.**

So much for the Owner's Manual of your E-68. We do hope you now have an idea about what your E-68 is capable of. There is a lot you can do with your E-68, so keep the manual in a safe place because you may need it every now and again. Have fun!

Specifications

E-68, Intelligent Keyboard

Keyboard
61 keys, velocity sensitive

Sound Source
Newly developed sound source with TVF (GM/GS format), 16-part multitimbral

Maximum polyphony
24 voices

Tones
241 enhanced Tones (including Variations) + 8 Drum Sets.

Built-in Music Styles
64 Original + 64 Variation with Basic and Advanced versions

Performance Memories
2 (Groups) x 8 (Banks) x 4 (numbers)= 64 memories

One Touch settings
4 for each Music Style

Recorder
1 song in internal memory (SMF type), unlimited number of songs on floppy disks.

Recorder RAM memory
±96kB

Built-in effects
Digital Reverb and Chorus (8 types each)

Display
Large, multi-function custom LCD display (backlit)

Power supply
ACJ adapter (included)

Jacks/connectors
Phones, Output (L/Mono, R), Sustain Footswitch, DC In, MIDI (IN, OUT), Computer interface

Floppy disk drive
Load SMF 0/1 songs, Save songs, Load/Save Performance Memory Sets

Card slot
TN-SC2 series Music Style Cards

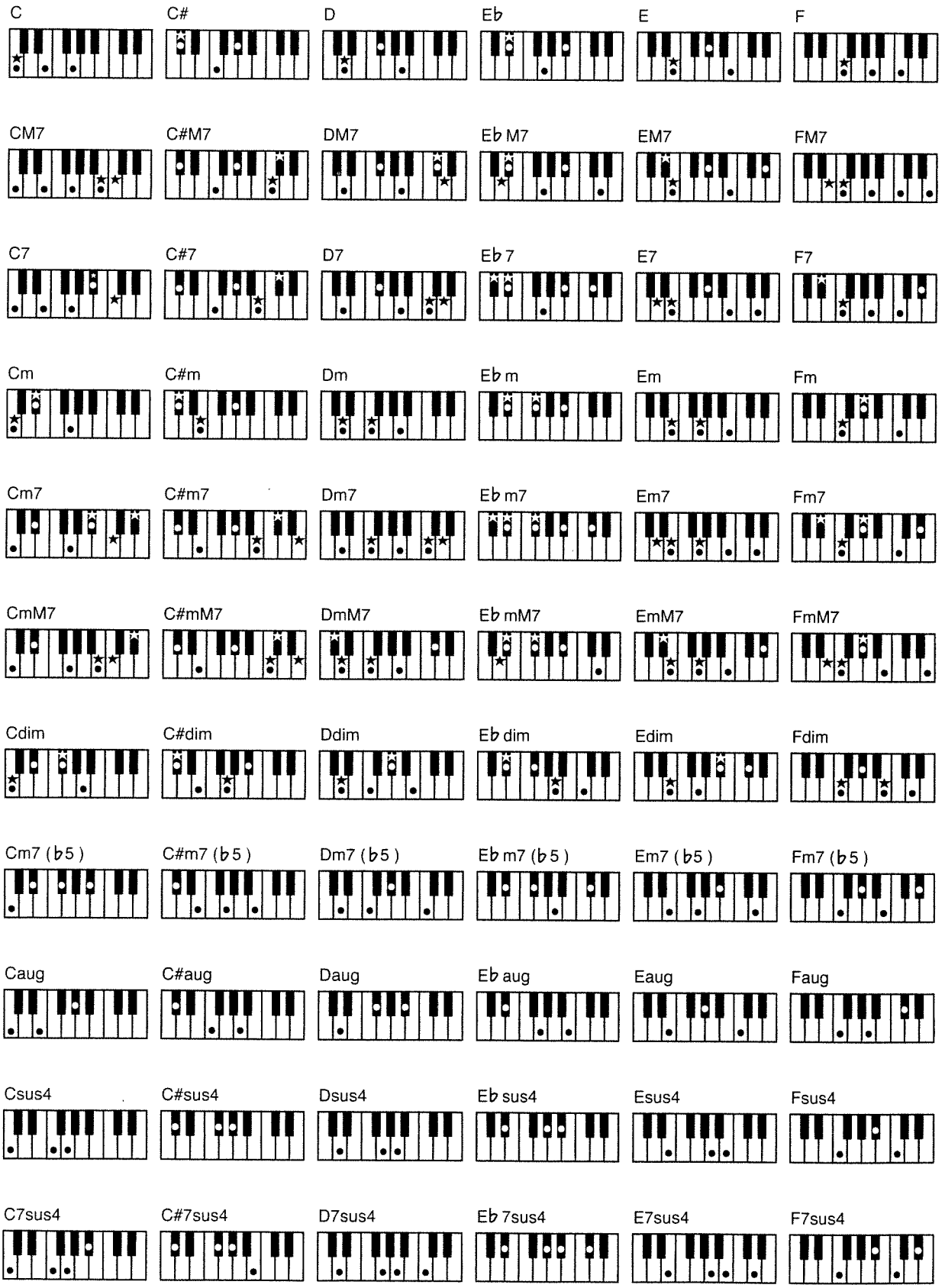
Amplification
5W + 5W stereo

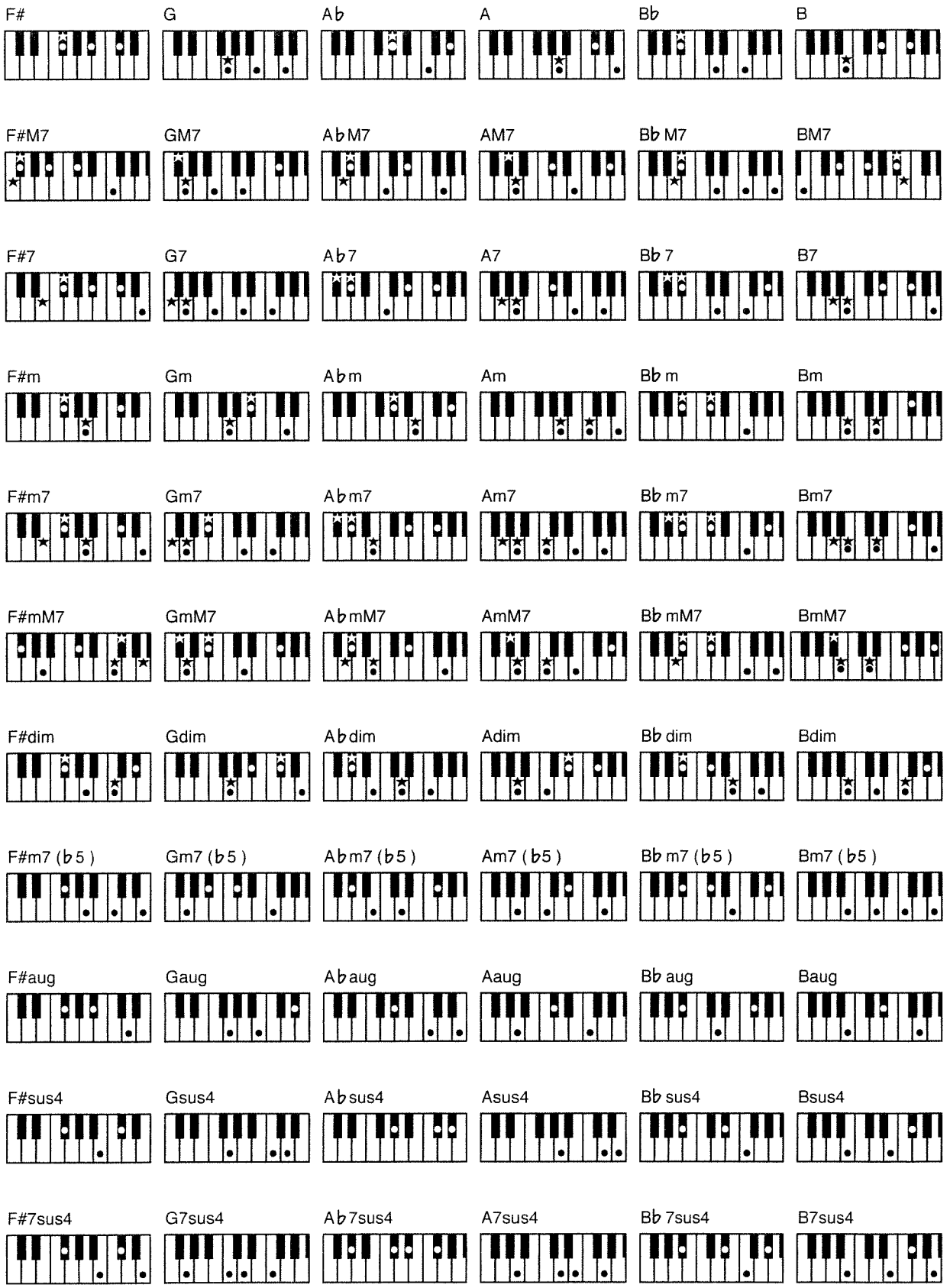
Speakers
Full-range 12cm x 2

Dimensions
1040 (W) x 347 (D) x 115 (H) mm

Weight
???

Chord Intelligence




F#
G
Ab
A
Bb
B
F#M7
GM7
AbM7
AM7
Bb M7
BM7
F#7
G7
Ab7
A7
Bb 7
B7
F#m
Gm
Abm
Am
Bb m
Bm
F#m7
Gm7
Abm7
Am7
Bb m7
Bm7
F#mM7
GmM7
AbmM7
AmM7
Bb mM7
BmM7
F#dim
Gdim
Abdim
Adim
Bb dim
Bdim
F#m7 (b5)
Gm7 (b5)
Abm7 (b5)
Am7 (b5)
Bb m7 (b5)
Bm7 (b5)
F#aug
Gaug
Abaug
Aaug
Bb aug
Baug
F#sus4
Gsus4
Absus4
Asus4
Bb sus4
Bsus4
F#7sus4
G7sus4
Ab7sus4
A7sus4
Bb 7sus4
B7sus4

E-68 Tones and Drum Sets

Piano

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
A11	1	**00**		**Piano 1**	**1**
A11	1	08		Piano 1w	2(D)
A11	2	16		Piano 1d	1
A12	2	**00**		**Piano 2**	**1**
A12	1	08		Piano 2w	2(D)
A13	3	**00**		**Piano 3**	**1**
A13	1	08		Piano 3w	2(D)
A14	4	**00**		**Honky-tonk**	2(D)
A14	1	08		Honky-tonk w	1
A15	5	**00**		**E.Piano 1**	**1**
A15	1	08		Detuned EP 1	2(D)
A15	2	16		E.Piano 1v	2(VM)
A15	3	24		60's E.Piano	2(D)
A16	6	**00**		**E.Piano 2**	**1**
A16	1	08		Detuned EP 2	2(D)
A16	2	16		E.Piano 2v	2(VM)
A17	7	**00**		**Harpsichord**	**1**
A17	1	08		Coupled Hps.	2(D)
A17	2	16		Harpsi.w	2(D)
A17	3	24		Harpsi.o	2(KO)
A18	8	**00**		**Clav.**	**1**

Chr Perc.

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
A21	9	**00**		**Celesta**	**1**
A22	10	**00**		**Glockenspiel**	**1**
A23	11	**00**		**Music Box**	**1**
A24	12	**00**		**Vibraphone**	**1**
A24	1	08		Vib.w	2(D)
A25	13	**00**		**Marimba**	**1**
A25	1	08		Marimba w	2(D)
A26	14	**00**		**Xylophone**	**1**
A27	15	**00**		**Tubular-bell**	**1**
A27	1	08		Church Bell	1
A27	2	09		Carillon	1
A28	16	**00**		**Santur**	**1**

Organ

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
A31	17	**00**		**Organ 1**	**1**
A31	1	01		Organ 101	1
A31	2	08		Detuned Or.1	2(D)
A31	3	09		Organ 109	2(D)
A31	4	16		60's Organ1	1
A31	5	17		60's Organ2	1
A31	6	18		60's Organ3	1
A31	7	32		Organ 4	1
A31	8	33		Even Bars	2(D)
A32	18	**00**		**Organ 2**	**1**
A32	1	01		Organ 201	1
A32	2	08		Detuned Or.2	2(D)
A32	3	32		Organ 5	1
A33	19	**00**		**Organ 3**	**2(D)**
A34	20	**00**		**Church Org.1**	**1**
A34	1	08		Church Org.2	2(D)
A34	2	16		Church Org.3	2(D)
A35	21	**00**		**Reed Organ**	**1**
A36	22	**00**		**Accordion Fr**	**2(D)**
A36	1	08		Accordion It	2(D)
A37	23	**00**		**Harmonica**	**1**
A37	1	01		Harmonica 2	1
A38	24	**00**		**Bandoneon**	**2(D)**

Guitar

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
A41	25	**00**		**Nylon-str.Gt**	**1**
A41	1	08		Ukulele	1
A41	2	16		Nylon Gt.o	2(KO)
A41	3	24		Velo Harmnix	1(VS)
A41	4	32		Nylon Gt.2	1
A42	26	**00**		**Steel-str.Gt**	**1**
A42	1	08		12-str.Gt	2(D)
A42	2	09		Nylon+Steel	2(D)
A42	3	16		Mandolin	1
A42	4	32		Steel-strGt 2	1
A43	27	**00**		**Jazz Gt.**	**1**
A43	1	08		Hawaiian Gt.	1
A44	28	**00**		**Clean Gt.**	**1**
A44	1	08		Chorus Gt.	2(D)
A45	29	**00**		**Muted Gt.**	**1**
A45	1	08		Funk Gt.	1
A45	2	16		Funk Gt.2	1(VS)
A46	30	**00**		**Overdrive Gt**	**1**
A47	31	**00**		**Distortion Gt**	**1**
A47	1	08		Feedback Gt.	2(D)
A48	32	**00**		**Gt.Harmonics**	**1**
A48	1	08		Gt. Feedback	1
A48	2	08		Ac.Gt.Harmnx	1

Bass

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
A51	33	**00**		**Acoustic Bs.**	**1**
A52	34	**00**		**Fingered Bs.**	**1**
A53	35	**00**		**Picked Bs.**	**1**
A54	36	**00**		**Fretless Bs.**	**1**
A55	37	**00**		**Slap Bass 1**	**1**
A56	38	**00**		**Slap Bass 2**	**1**
A57	39	**00**		**Synth Bass 1**	**1**
A57	1	01		SynthBass 101	1
A57	2	08		Synth Bass 3	1
A58	40	**00**		**Synth Bass 2**	**2(D)**
A58	1	01		Synth Bass 201	2(VM)
A58	2	08		Synth Bass 4	2(D)
A58	3	16		Rubber Bass	2(D)

Strings & orch.

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
A61	41	**00**		**Violin**	**1**
A61	1	08		Slow Violin	1
A62	42	**00**		**Viola**	**1**
A63	43	**00**		**Cello**	**1**
A64	44	**00**		**Contrabass**	**1**
A65	45	**00**		**Tremolo Str**	**1**
A66	46	**00**		**PizzicatoStr**	**1**
A67	47	**00**		**Harp**	**1**
A68	48	**00**		**Timpani**	**1**

Ensemble

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
A71	49	**00**		**Strings**	**1**
A71	1	08		Orchestra	2(D)
A72	50	**00**		**Slow Strings**	**1**
A73	51	**00**		**Syn.Strings1**	**1**
A73	1	08		Syn.Strings3	2(D)
A74	52	**00**		**Syn.Strings2**	2(D)
A75	53	**00**		**Choir Aahs**	**1**
A75	1	32		Choir Aahs 2	1
A76	54	**00**		**Voice Oohs**	**1**
A77	55	**00**		**SynVox**	**1**
A78	56	**00**		**OrchestraHit**	2(D)

Brass

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
A81	57	**00**		**Trumpet**	**1**
A81	1	01		Trumpet2	1
A82	58	**00**		**Trombone**	**1**
A82	1	01		Trombone 2	2(D)
A83	59	**00**		**Tuba**	**1**
A84	60	**00**		**MutedTrumpet**	**1**
A85	61	**00**		**French Horn**	**2(D)**
A85	1	01		French Horn 2	2(D)
A86	62	**00**		**Brass 1**	**1**
A86	1	08		Brass 2	2(D)
A87	63	**00**		**Synth Brass1**	**2(D)**
A87	1	08		Synth Brass3	2(D)
A87	2	16		AnalogBrass1	2(D)
A88	64	**00**		**Synth Brass2**	**2(D)**
A88	1	08		Synth Brass4	1
A88	2	16		AnalogBrass2	2(D)

Reed

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
B11	65	**00**		**Soprano Sax**	**1**
B12	66	**00**		**Alto Sax**	**1**
B12	1	08		Sax1	1(VS)
B13	67	**00**		**Tenor Sax**	**1**
B13	1	08		Sax2	1(VS)
B14	68	**00**		**Baritone Sax**	**1**
B15	69	**00**		**Oboe**	**1**
B16	70	**00**		**English Horn**	**1**
B17	71	**00**		**Bassoon**	**1**
B18	72	**00**		**Clarinet**	**1**

Pipe

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
B21	73	**00**		**Piccolo**	**1**
B22	74	**00**		**Flute**	**1**
B23	75	**00**		**Recorder**	**1**
B24	76	**00**		**Pan Flute**	**1**
B25	77	**00**		**Bottle Blow**	2(D)
B26	78	**00**		**Shakuhachi**	2(D)
B27	79	**00**		**Whistle**	**1**
B28	80	**00**		**Ocarina**	**1**

Synth Lead

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
B31	81	**00**		**Square Wave**	2(D)
B31	1	01		Square	1
B31	2	08		Sine Wave	1
B32	82	**00**		**Saw Wave**	2(D)
B32	1	01		Saw	1
B32	2	08		Doctor Solo	2(D)
B33	83	**00**		**Syn.Calliope**	2(D)
B34	84	**00**		**Chiffer Lead**	2(D)
B35	85	**00**		**Charang**	2(D)
B36	86	**00**		**Solo Vox**	2(D)
B37	87	**00**		**5th Saw Wave**	2(D)
B38	88	**00**		**Bass & Lead**	2(D)

Synth Pad

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
B41	89	**00**		**Fantasia**	2(D)
B42	90	**00**		**Warm Pad**	**1**
B43	91	**00**		**Polysynth**	2(D)
B44	92	**00**		**Space Voice**	**1**
B45	93	**00**		**Bowed Glass**	2(D)
B46	94	**00**		**Metal Pad**	2(D)
B47	95	**00**		**Halo Pad**	2(D)
B48	96	**00**		**Sweep Pad**	**1**

Synth Sfx

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
B51	97	**00**		**Ice Rain**	2(D)
B52	98	**00**		**Soundtrack**	2(D)
B53	99	**00**		**Crystal**	2(D)
B53	1	01		Syn Mallet	1
B54	100	**00**		**Atmosphere**	2(D)
B55	101	**00**		**Brightness**	2(D)
B56	102	**00**		**Goblin**	2(D)
B57	103	**00**		**Echo Drops**	**1**
B57	1	01		Echo Bell	2(D)
B57	2	02		Echo Pan	2(D)
B58	104	**00**		**Star Theme**	2(D)

Ethnic Misc

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
B61	105	**00**		**Sitar**	**1**
B61	1	01		Sitar 2	2(D)
B62	106	**00**		**Banjo**	**1**
B63	107	**00**		**Shamisen**	**1**
B64	108	**00**		**Koto**	**1**
B64	1	08		Taisho Koto	2(D)
B65	109	**00**		**Kalimba**	**1**
B66	110	**00**		**Bag Pipe**	**1**
B67	111	**00**		**Fiddle**	**1**
B68	112	**00**		**Shanai**	**1**

Percussive

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
B71	113	**00**		**Tinkle Bell**	**1**
B72	114	**00**		**Agogo**	**1**
B73	115	**00**		**Steel Drums**	**1**
B74	116	**00**		**Woodblock**	**1**
B74	1	08		Castanets	1
B75	117	**00**		**Taiko**	**1**
B75	1	08		Concert BD	1
B76	118	**00**		**Melo. Tom 1**	**1**
B76	1	08		Melo. Tom 2	1
B77	119	**00**		**Synth Drum**	**1**
B77	1	08		808 Tom	1
B77	2	09		Elec Perc	1
B78	120	**00**		**Reverse Cym.**	**1**

Sfx

Tone #	Var.	Pg#	CC0#	Tone Name	No. of Voices
B81	121	**00**		**Gt.FretNoise**	**1**
B81	1	01		Gt.Cut Noise	1
B81	2	02		String Slap	1
B82	122	**00**		**Breath Noise**	**1**
B82	1	01		Fl.Key Click	1
B83	123	**00**		**Seashore**	**1**
B83	1	01		Rain	1
B83	2	02		Thunder	1
B83	3	03		Wind	1
B83	4	04		Stream	2(D)
B83	5	05		Bubble	2(D)
B84	124	**00**		**Bird**	**2(D)**
B84	1	01		Dog	1
B84	2	02		Horse-Gallop	1
B84	3	03		Bird 2	1
B85	125	**00**		**Telephone 1**	**1**
B85	1	01		Telephone 2	1
B85	2	02		DoorCreaking	1
B85	3	03		Door	1
B85	4	04		Scratch	1
B85	5	05		Windchime	2(D)
B86	126	**00**		**Helicopter**	**1**
B86	1	01		Car-Engine	1
B86	2	02		Car-Stop	1
B86	3	03		Car-Pass	1
B86	4	04		Car-Crash	2(D)
B86	5	05		Siren	1
B86	6	06		Train	1
B86	7	07		Jetplane	2(D)
B86	8	08		Starship	2(D)
B86	9	09		Burst Noise	2(D)
B87	127	**00**		**Applause**	2(D)
B87	1	01		Laughing	1
B87	2	02		Screaming	1
B87	3	03		Punch	1
B87	4	04		Heart Beat	1
B87	5	05		Footsteps	1
B88	128	**00**		**Gun Shot**	**1**
B88	1	01		Machine Gun	1
B88	2	02		Lasergun	1
B88	3	03		Explosion	2(D)

Number of Voices:

1 = Single
1(VS) = Velocity Switch
2(D) = Dual
2(VM) = Velocity Mix
2(KO) = With Note Off sound

Drum Sets

Tone #	Pg#	CC0#	Tone Name
1	1	00	Standard
2	9	00	Room
3	17	00	Power
4	25	00	Electronic
5	26	00	TR-808
(Only Via MIDI)	33	00	Jazz
6	41	00	Brush
7	49	00	Orchestra
8	57	00	SFX

Tone# = Group / Bank / Number Var. = Variation Pg# = MIDI Program Change Number (1-128) CC0#= MIDI Control Change 0 Value (0-127)

MIDI Implementation Chart

MIDI IMPLEMENTATION CHART

[INTELLIGENT KEYBOARD] (Arranger Section) Date: June 1996
Model E-68 Version: 1.0

FUNCTION		TRANSMITTED	RECOGNIZED	REMARKS
Basic	Default	2-4-6-7-8-9-10-11-12-13-16	1-16	1 = Rx 1□ 9 = Acc 3 2 = Acc Bass 10 = Acc Drums/Stl PC 3 = Rx 2 11 = Lower 4 = Upper1 12 = Man Bass 5 = Rx 3 13 = Basic MIDI Ch 6 = Upper 2 14 = Note to Arr 1 7 = Acc 1 15 = Note to Arr 2 8 = Acc 2 16 = Man Drum
Channel	Changed	1-16, OFF	1-16, OFF	
□	Default	Mode 3	Mode 3	
Mode	Messages	Mode 3, 4 (M=1)	Mode 3, 4 (M=1) *2	
	Altered	**********		
Note□		0-127	0-127 *1	
Number:	True voice	**********	0-127	
Velocity	Note ON	O	O *1	
	Note OFF	X	X	
After□	Key's	X	O *1	
Touch	Ch's	X	O *1	
Pitch Bender		O	O *1	
	0,32	O	O (MSB only) *1	Bank select
	1	O	O *1	Modulation
	5	O	O *1	Portamento time
	6,38	X	O *1	Data entry
	7	O	O *1	Volume
Control□	10	X□□□	O *1	Panpot
□	11	X□□□	O *1	Expression
Change	64	O	O *1	Hold 1
	65	X	O *1	Portamento
	66	X	O *1	Sostenuto
	67	X	O *1	Soft
	84	O	O *1	Portamento control
	91	X	O (Reverb) *1	Effect 1 depth
	93	O	O (Chorus) *1	Effect 3 depth
	98,99	X	O *1	NRPN LSB, MSB
	100,101	X	O *1	RPN LSB, MSB
	120	X	O *1	All sound off
	121	X	O *1	Reset all controllers
Program□		O	O *1	
Change:□□□□□□□□□□		**********	0-127	Prog. 1-128 □
System Exclusive		O	O	
System□	:Song Pos	X	X	
□	:Song Sel	X	X	
Common□	:Tune	X	X	
□				
□				
System□	:Clock	O	O	
Real Time□	:Commands	O	O	
□				
Aux□	:Local On/Off	X	X	
□	:All Notes Off	X	O□ (123-125)	
Messages□	:Active Sense	X	O	
□	:Reset	X	X	
□				
Notes□		* 1 □ □ O or X is selectable		
□		* 2 □□ Recognize as M=1 even if M not equal 1		

Mode 1: OMNI ON, POLY **Mode 2:** OMNI ON, MONO O: YES
Mode 3: OMNI OFF, POLY **Mode 4:** OMNI OFF, MONO X: NO

MIDI IMPLEMENTATION CHART

[INTELLIGENT KEYBOARD] (Sound Module & Keyboard Section) Date: June 1996
Model E-68 Version: 1.0

FUNCTION		TRANSMITTED	RECOGNIZED	REMARKS
Basic□ **Channel**	Default Changed	1-16 1-16, OFF	1-16 1-16, OFF	4 = Upper 1 □ 11 = Lower 6 = Upper 2 10 = Man Drum
□ **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	
Velocity	Note ON Note OFF	O X	O X	
After□ **Touch**	Key's Ch's	X X	O *1 O *1	
Pitch Bender		O	O *1	
Control□ □ **Change**	0,32 1 5 6,38 7 10 11 64 65 66 67 84 91 93 98,99 100,101 120 121	O O O O O O O O O O O O O O O O O O	O (MSB only) *1 O *1 O *1 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 *1 O *1 O *1 O *1	Bank select Modulation Portamento time Data entry Volume Panpot Expression Hold 1 Portamento Sostenuto Soft Portamento control Effect 1 depth Effect 3 depth NRPN LSB, MSB RPN LSB, MSB All sound off Reset all controllers
Prog □ **change:**	True #	O **********	O *1 0-127	 Prog. 1-128
System Exclusive		O	O	
System□ □ **Common**	: Song Pos : Song Sel : Tune	O X X	O *1 X X	
System□ **Real Time**	: Clock : Commands	O O	O *1 O	
Aux□ □ **Messages**	: Local ON/OFF : All Notes OFF : Active Sense : Reset	X O X X	X 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 2:** OMNI ON, MONO O: YES
Mode 3: OMNI OFF, POLY **Mode 4:** OMNI OFF, MONO X: NO

NOTE

NOTE

NOTE

NOTE

Information

When you need repair service, call your local Roland Service Station or the authorized Roland distributor in your country as shown below.

ARGENTINA

Instrumentos Musicales S.A.
Florida 638
(1005) Buenos Aires
ARGENTINA
TEL: (01) 394 4029

BRAZIL

Roland Brasil Ltda.
R. Coronel Octaviano da Silveira
203 05522-010
Sao Paulo BRAZIL
TEL: (011) 843 9377

CANADA

Roland Canada Music Ltd.
(Head Office)
5480 Parkwood Way Richmond
B. C., V6V 2M4 CANADA
TEL: (0604) 270 6626

Roland Canada Music Ltd.
(Toronto Office)
Unit 2, 109 Woodbine Downs
Blvd, Etobicoke, ON
M9W 6Y1 CANADA
TEL: (0416) 213 9707

MEXICO

Casa Veerkamp, s.a. de c.v.
Av. Toluca No. 323 Col. Olivar de
los Padres 01780 Mexico D.F.
MEXICO
TEL: (525) 668 04 80

La Casa Wagner de
Guadalajara s.a. de c.v.
Av. Corona No. 202 S.J.
Guadalajara, Jalisco Mexico
C.P.44100 MEXICO
TEL: (03) 613 1414

PANAMA

Productos Superiores, S.A.
Apartado 655 - Panama 1
REP. DE PANAMA
TEL: 26 3322

U. S. A.

Roland Corporation U.S.
7200 Dominion Circle
Los Angeles, CA. 90040-3696,
U. S. A.
TEL: (0213) 685 5141

VENEZUELA

Musicland Digital C.A.
Av. Francisco de Miranda.
Centro Parque de Cristal, Nivel
C2 Local 20 Caracas
VENEZUELA
TEL: (02) 285 9218

AUSTRALIA

Roland Corporation
Australia Pty. Ltd.
38 Campbell Avenue
Dee Why West, NSW 2099
AUSTRALIA
TEL: (02) 982 8266

NEW ZEALAND

Roland Corporation (NZ) Ltd.
97 Mt. Eden Road, Mt. Eden,
Auckland 3, NEW ZEALAND
TEL: (09) 3098 715

HONG KONG

Tom Lee Music Co., Ltd.
Service Division
22-32 Pun Shan Street, Tsuen
Wan, New Territories,
HONG KONG
TEL: 2415 0911

INDONESIA

PT CITRARAMA
BELANTIKA
Kompleks Perkantoran Duta
Merlin Blok E No.6—7
Jl. Gajah Mada No.3—5, Jakarta
10130,
INDONESIA
TEL: (021) 3850073

KOREA

Cosmos Corporation
Service Station
261 2nd Floor Nak-Won Arcade
Jong-Ro ku, Seoul, KOREA
TEL: (02) 742 8844

MALAYSIA

Bentley Music SDN BHD
No.142, Jalan Bukit Bintang 55100
Kuala Lumpur, MALAYSIA
TEL: (03) 2443333

PHILIPPINES

G.A. Yupangco & Co. Inc.
339 Gil J. Puyat Avenue
Makati, Metro Manila 1200,
PHILIPPINES
TEL: (02) 899 9801

SINGAPORE

Swee Lee Company
BLOCK 231, Bain Street #03-23
Bras Basah Complex,
SINGAPORE 0718
TEL: 3367886

CRISTOFORI MUSIC PTE
LTD
335, Joo Chiat Road SINGAPORE
1542
TEL: 3450435

TAIWAN

Siruba Enterprise (Taiwan)
Co., LTD.
Room. 5, 9fl. No. 112 Chung Shan
N.Road Sec.2 Taipei, TAIWAN,
R.O.C.
TEL: (02) 561 3339

THAILAND

Theera Music Co. , Ltd.
330 Verng Nakorn Kasem, Soi 2,
Bangkok 10100, THAILAND
TEL: (02) 2248821

BAHRAIN

Moon Stores
Bad Al Bahrain Road,
P.O.Box 20077
State of BAHRAIN
TEL: 211 005

IRAN

TARADIS
Mir Emad Ave. No. 15, 10th street
P. O. Box 15875/4171 Teheran,
IRAN
TEL: (021) 875 6524

ISRAEL

Halilit P. Greenspoon &
Sons Ltd.
8 Retzif Ha'aliya Hashnya St.
Tel-Aviv-Yafo ISRAEL
TEL: (03) 6823666

JORDAN

AMMAN Trading Agency
Prince Mohammed St. P. O. Box
825 Amman 11118 JORDAN
TEL: (06) 641200

KUWAIT

Easa Husain Al-Yousifi
P.O. Box 126 Safat 13002
KUWAIT
TEL: 5719499

LEBANON

A. Chahine & Fils
P.O. Box 16-5857 Gergi Zeidan St.
Chahine Building, Achrafieh
Beirut, LEBANON
TEL: (01) 335799

OMAN

OHI Electronics & Trading
Co. LLC
P. O. Box 889 Muscat
Sultanate of OMAN
TEL: 706 010

QATAR

Badie Studio & Stores
P.O.Box 62,
DOHA QATAR
TEL: 423554

SAUDI ARABIA

SAF Music Center
AL-Khobar 31952, P. O. Box 1366
SAUDIARABIA
TEL: (03) 898 3311

Abdul Latif S. Al-Ghamdi
Trading Establishment
Middle East Commercial Center
Al-Khobar Dharan Highway
W/hamood st.
P. O. Box 3631 Al-Khober
31952 SAUDIARABIA
TEL: (03) 898 2332

SYRIA

Technical Light & Sound
Center
Khaled Ebn Al Walid St.
P.O.Box 13520
Damascus - SYRIA
TEL: (011) 2235 384

TURKEY

Barkat Sanayi ve Ticaret
Siraselvier Cad. Guney Ishani No.
86/6 Taksim, Istanbul TURKEY
TEL: (0212) 2499324

U.A.E

Zak Electronics & Musical
Instruments Co.
Zabeel Road, Al Sherooq Bldg.,
No. 14, Grand Floor DUBAI
U.A.E.
P.O. Box 8050DUBAI, U.A.E
TEL: (04) 360715

EGYPT

Al Fanny Trading Office
9, Ebn Hagar Al Askalany Street,
Ard El Golf, Heliopolis, Cairo,
11341 EGYPT
TEL: (02) 4171828
(02) 4185531

MAURITIOUS

Philanne Music Center
4th. Floor Noll, Happy World
House Sir William Newton Street
Port Luis MAURITIOUS
TEL: 242 2986

REUNION

FO - YAM Marcel
25 Rue Jules MermanZI.
Chaudron - BP79 97491
Ste Clotilde REUNION
TEL: 28 29 16

SOUTH AFRICA

That Other Music Shop
(PTY) Ltd.
11 Melle Street (Cnr Melle and
Juta Street)
Braamfontein 2001
Republic of SOUTH AFRICA
TEL: (011) 403 4105

Paul Bothner (PTY) Ltd.
17 Werdmuller Centre Claremont
7700
Republic of SOUTH AFRICA
TEL: (021) 64 4030

AUSTRIA

E. Dematte &Co.
Neu-Rum Siemens-Strasse 4
A-6040 Innsbruck P.O.Box 83
AUSTRIA
TEL: (0512) 26 44 260

BELGIUM/HOLLAND/ LUXEMBOURG

Roland Benelux N. V.
Houtstraat 1 B-2260 Oevel-
Westerlo BELGIUM
TEL: (014) 575811

BELORUSSIA

TUSHE
UL. Mogilovskaja 4 / 4 / 145
220001 MINSK
TEL: (0172) 252-059

CYPRUS

Radex Sound Equipment Ltd.
17 Diagorou St., P.O.Box 2046,
Nicosia CYPRUS
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

FRANCE

Guillard Musiques Roland
ZAC de Rosarge Les Echets 01700
MIRIBEL FRANCE
TEL: 7226 5060

Guillard Musiques Roland
(Paris Office)
1923 rue Léon Geoffroy 94400
VITRY-SUR-SEINE FRANCE
TEL: (1) 4680 86 62

FINLAND

Roland Scandinavia As,
Filial Finland
Lauttasaarentie 54 B
Fin-00201 Helsinki, FINLAND
P. O. Box No. 109
TEL: (0) 682 4020

GERMANY

Roland Elektronische
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

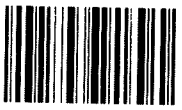
Roland (U.K.) Ltd., Swansea
Office
Atlantic Close, Swansea
Enterprise Park SWANSEA
West Glamorgan SA7 9FJ,
UNITED KINGDOM
TEL: (01792) 702701

As of March, 11, 1996

Roland®

k6018257

UPC k6018257



10981

Roland