

Roland®



Realtime Arranger

RA30

OWNER'S MANUAL

Introduction

We'd like to take a moment to thank you for purchasing the Roland RA-30 Realtime Arranger. The RA-30 is a realtime arranger that can be connected to an electronic piano (such as a Roland digital piano) or an acoustic piano, making it easy to enjoy ensemble play with your keyboard performances.

Please read this manual thoroughly before you try using the RA-30, to help you get the most out of its outstanding features and enjoy years of trouble-free service.

Main Features

1. Lots of Tones available for play

The RA-30 has many Tones covering a wide range of instruments, including sax, violin, and trumpet. It's easy to select these Tones from the control panel, making it a snap to play a rich array of instrumental sounds. There are also many Drum Tones built in, giving you an abundant range for rhythmic expression.

2. Sophisticated ensembles can be played

Whether it be Pops, Rock, Latin, or whatever, the built-in Arranger function lets you play music in a wide range of genres. Just switch the music style to the musical genre you want, and the RA-30 automatically plays the best accompaniment.

3. Ensemble play with an acoustic piano

By connecting a KP-24 Acoustic Keyboard Pickup (sold separately) to the RRC (Roland remote control) In connector, you can enjoy ensembles performances with an acoustic piano that has no MIDI connectors.

For the U.K.

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

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.
Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

For Nordic Countries

Apparatus containing Lithium batteries

ADVARSEL!

Lithiumbatteri - Eksplosjonsfare ved feilagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

VARNING!

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

ADVARSEL!

Lithiumbatteri - Eksplosjonsfare.
Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten.
Brukt batteri returneres apparatleverandøren.

VAROITUS!

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

For Germany

Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt, daß der/die/das

Realtime Arranger RA-30

(Gerät, Typ, Bezeichnung)

in Übereinstimmung mit den Bestimmungen der BMPT-AmtsblVfg 243/1991, 46/1992 funk-entstört ist.
Der vorschriftsmäßige Betrieb mancher Geräte (z. B. Meßsender) kann allerdings gewissen Einschränkungen unterliegen. Beachten Sie deshalb die Hinweise in der Bedienungsanleitung.

Dem Zentralamt für Zulassungen im Fernmeldewesen wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf die Einhaltung der Bestimmungen eingeräumt.

Roland Corporation

4-16 Dojimahama 1-Chome Kita-ku Osaka 530 Japan

(Name und Anschrift des Herstellers/Importeurs)

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

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.

Using the RA-30, and How to Read This Manual

The RA-30 can be used in any of three different ways, depending on what type of instrument it's connected to.

1. Using the RA-30 with an electronic piano

You can connect the RA-30 to a Roland digital piano or another electronic piano to play ensembles (or individual Tones).

2. Using the RA-30 with an acoustic piano

You can connect the RA-30 to a KP-24 Acoustic Keyboard Pickup (sold separately) to play ensembles (or individual Tones) using an acoustic piano.

3. Using the RA-30 with other instruments

You can connect the RA-30 to a MIDI instrument (such as a MIDI accordion) to play ensembles (or individual Tones).

Some of the chapters and sections in this manual are marked with **E.P. / A.P. / MIDI** to the right of the title. These indicate the particular instrument for connection, and tell you at a glance what type of instrument is covered in the chapter or section. Be sure to read the chapters or sections that deal with the type of instrument that you are using.

E.P. (Electronic Piano)	: Read this if you have the RA-30 connected to an electronic piano.
A.P. (Acoustic Piano)	: Read this if you have the RA-30 connected to an acoustic piano.
MIDI	: Read this if you have the RA-30 connected to a MIDI accordion, or some other MIDI instrument.

** If you're using a synthesizer or other type of MIDI keyboard, you should read the sections marked "E.P." instead of the sections marked "MIDI."*

How Button Names Are Written

In this manual you will see instructions such as "press the Tempo -/+ buttons." This is a simplified way of saying "press the Tempo - button or + button."

General MIDI system



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

GS format



The GS format is Roland's unified set of specifications to standardize the MIDI capabilities of sound generating devices. Music data bearing the GS logo () can be played back using any GS sound generating unit.

The RA-30's sound generator conforms to both the GM and GS specifications.

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Important Notes

Be sure to use only the AC adaptor supplied with the unit. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.

Power Supply

- Before connecting this unit to other devices, turn off the power to all units; this will help prevent damage or malfunction.
- Do not use this unit on the same power circuit with any device that will generate line noise; an electric motor or variable lighting system for example.
- The power requirement for this unit is indicated on its nameplate (rear panel). Ensure that the voltage in your installation meets this requirement.
- Avoid damaging the power cord: do not step on it, place heavy objects on it, etc.
- When disconnecting the AC adaptor from the power outlet, grasp the plug itself; never pull on the cord.
- If the unit is to remain unused for an extended period of time, unplug the power cord.

Placement

- Do not subject the unit to temperature extremes (eg., direct sunlight in an enclosed vehicle). Avoid using or storing the unit in dusty or humid areas, or areas that are subject to high levels of vibration.
- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Do not expose the unit to temperature extremes or install it near devices that radiate heat. Direct sunlight in an enclosed vehicle can deform or discolor the unit.

Maintenance

- For everyday cleaning wipe the unit 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

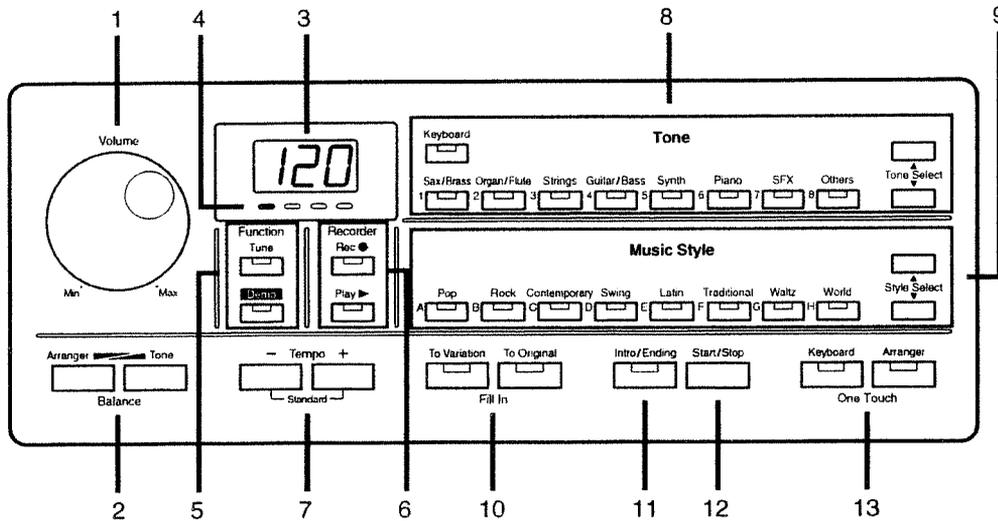
- Protect the unit from strong impact.
- Do not allow objects or liquids of any kind to penetrate the unit. In the event of such an occurrence, discontinue use immediately. Contact qualified service personnel as soon as possible.
- Never strike or apply strong pressure to the display.
- Before using the unit in a foreign country, consult with qualified service personnel.
- Should a malfunction occur, or if you suspect there is a problem, discontinue use immediately. Contact qualified service personnel as soon as possible.
- To avoid the risk of electric shock, do not open the unit or its AC adaptor.

Memory Backup

- This unit 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.
- When the battery becomes weak the following message will appear in the display: "E00". Please change the battery as soon as possible to avoid the loss of memory data.

Part Names and Descriptions

Front Panel



1. Volume Knob

This knob adjusts the overall volume (p.12).

2. Balance Buttons

During Style Play, these are used to adjust the Tone and Performance (Arranger) volume balance (p.36). During Tone Play, these are used to adjust the volume balance of the Tones and Rhythm (p.34). If during Tone Play you want to play only the Tones, then use the Balance buttons to increase the Tones. You may be unable to hear the Tones if the Rhythm volume is too high.

3. Display

This displays the Music Style, Tone Number, and other information.

4. Beat Indicators

During Style Play, they flash with each beat (p.27).

5. Function

Tune Button

Press this to adjust the overall pitch of the RA-30 (p.19).

Demo Button

Press this to play a Demo song (p.20).

6. Recorder

Rec Button

Press this button to record a performance (p.37).

Play Button

Pressed to play back a recorded performance (p.37).

7. Tempo Buttons +/-

These are used to adjust the speed (tempo) of Style Play, or for a song being played back or recorded (p.27). These buttons are also used when making settings for various parameters.

8. Tone

Tone Group Buttons

These are used to select a Group for the Tone (p.21).

Keyboard Button

Press this when you want to play using the sounds of an electronic piano connected to the RA-30 (p.21).

Tone Select Buttons

These choose the Tone to be played from among the variations in the currently selected Tone Group (p.21).

9. Music Style

Style Group Buttons

These select the Group for the Music Style (p.24).

Style Select Buttons

These choose the Style to be played from among the variations in the currently selected Style Group (p.25).

10. Fill In

To Original Button

To Variation Button

Pressed to insert Fill-Ins during Style Play (p.28).

11. Intro/Ending Button

This is used to add an intro or an ending to Style Play (p.26).

12. Start/Stop Button

Pressed to start and stop Style Play. It is also used to start or stop play of a Demo song (p.20, p.26).

13. One Touch

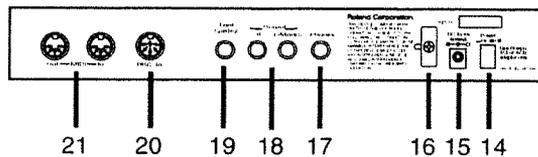
Arranger Button

Press this to enable Style Play (p.24).

Keyboard Button

Press this to play Tones using the entire keyboard of an electronic piano (p.21).

Rear Panel



14. Power Switch

Turns the power on or off (p.11, p.15, p.18).

15. DC-In Jack

This is for connecting an AC adaptor (p.8, p.13, p.16). Be sure to use only the AC adaptor supplied with the RA-30.

16. Cord Hook

By hooking the AC adaptor cord around the cord hook, you can prevent the plug from being accidentally pulled out.

17. Phones Jack

Accepts connection of headphones (p.10, p.17).

18. Output Jacks R/L (Mono)

These provide the unit's audio output, which can be input to a keyboard amp, portable stereo, electronic piano, or similar device (p.8, p.13, p.16).

19. Foot Control Jack

Here is where you can connect a pedal switch (Roland DP-2; sold separately) (p.9, p.14, p.17).

20. RRC In Connector

Here is where you need to connect the RRC cable coming from the KP-24 in order to receive its performance data (p.14).

21. MIDI Connectors

Out

This is used to send MIDI data from the RA-30 to another MIDI instrument.

In

This is used to receive MIDI data from another MIDI instrument.

Chapter 1-1 Getting Ready for Connection to an Electronic Piano E. P.

■ Making the Connections

To prevent malfunctions, and/or damage to speakers (or other equipment) be sure to switch off all equipment, and turn the volume all the way down before making any connections.

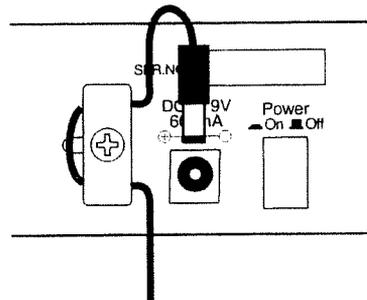
● Installing the RA-30

If the RA-30 will fit on the top of your electronic piano, place it there, since that is probably the most convenient location for it. Operation may be easier if you place it at the left-hand side of the electronic piano.

If you can't place the RA-30 on top of the electronic piano, then you should use a small table that is at about the same height as the electronic piano's keyboard. Be sure to use a table that does not wobble or tip over easily.

Place the table to the left of the electronic piano, and then put the RA-30 on top of the table.

● Plugging in the AC Adaptor

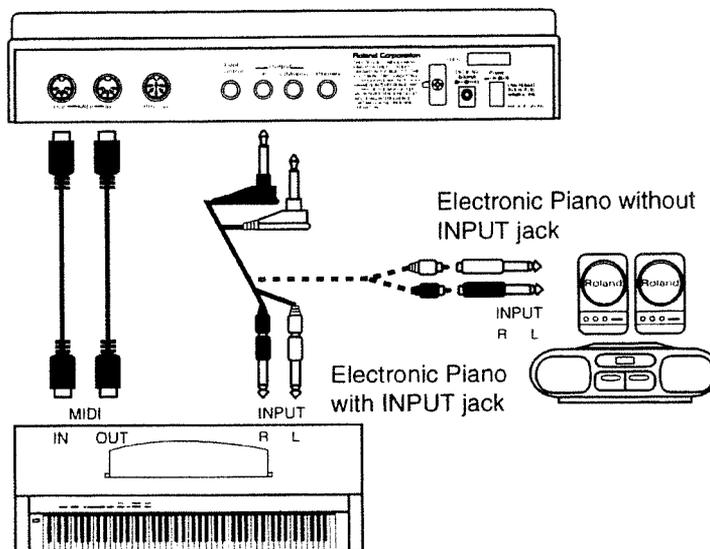


1. Plug the AC adaptor into the DC In jack on the rear panel.

* Be sure to use only the AC adaptor supplied with your RA-30.

2. Hook the AC adaptor cord around the cord hook.
You can prevent the plug from being accidentally pulled out.
3. Plug the AC adaptor into a power outlet.

● Connecting to the Electronic Piano



○ MIDI Cable Connections

1. Use a MIDI cable to connect the MIDI OUT connector on the electronic piano to the MIDI In connector on the RA-30.
2. Use a MIDI cable to connect the MIDI IN connector on the electronic piano to the MIDI Out connector on the RA-30.

○ Audio Cable Connections

How you should make the connections differs depending on whether or not the electronic piano has an INPUT jack.

If the Electronic Piano Has an INPUT Jack...

If you are using an electronic piano equipped with an INPUT jack, such as a Roland HP series instrument, then you can play the sounds from the RA-30 on the electronic piano's speakers.

1. Use the supplied audio cables to connect the Output L/R jacks on the RA-30 to the INPUT L/R jacks on the electronic piano.

* If you're making a monaural (single cable) connection, be sure to use the L (Mono) jack.

If the Electronic Piano Does Not Have an INPUT Jack...

If you are using an electronic piano that has no INPUT jack, such as a Roland HP-G series instrument, then you can play the sounds from the RA-30 on a keyboard amp or portable stereo.

1. Use the supplied audio cables to connect the Output L/R jacks on the RA-30 to the INPUT L/R jacks on the keyboard amp, or to the LINE IN L/R or AUX IN L/R jacks on the portable stereo.

* If you're making a monaural (single cable) connection, be sure to use the L (Mono) jack.

If You're Using a Roland HP-G Series Instrument...

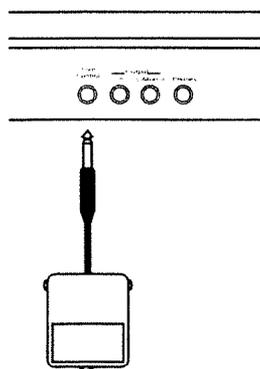
If you're connecting the RA-30 to a Roland HP-G series electronic piano, then please take note of the following important points.

- You cannot use "Dual Play" on the HP-G.
- You cannot select a Drum Set on the HP-G. If you want to use the keyboard to play drums, then choose a Drum Tone on the RA-30 (p.23).
- The Piano Partner on the HP-G cannot be used.
- Additionally, if you set the RA-30 (during powerup) so it is to be used with an HP-G series unit (p.11), you can listen to Style Play through the speakers on the HP-G series instrument, even when not hooked up to a keyboard amp or portable stereo (no audio cable needed). In this case, however, you will not be able to play Demo songs through the HP-G's speakers. If you want to hear the Demo songs, you will need to connect headphones to the RA-30 (p.10). You also will not be able to select the RA-30's Drum Tones.

● Connecting a Pedal Switch

1. Connecting a pedal switch (Roland DP-2; sold separately) to the Foot Control jack on the RA-30 lets you use the pedal switch to perform the same operations as the Start/Stop button.

* You can also use the pedal switch for a variety of other functions as well. If you want to know more, see "Changing the Pedal Functions" (p.39).



● Connecting Headphones

You can use the headphones for practice at night, or at other times when you don't want to use the speakers.

* If the electronic piano has no INPUT jack, then you can't listen to the RA-30 and electronic piano at the same time through the headphones.

* The Phones jack on the RA-30 is a standard stereo phone jack. If you wish to use headphones with a stereo-mini plug, you will need to use an adaptor to convert it to the 1/4" phone type.

○ If the Electronic Piano Has an INPUT Jack...

Plug the headphones into the PHONES jack on the electronic piano.

○ If You're Using a Roland HP-G Series Instrument Without Hookup to a Keyboard Amp or Portable Stereo...

Plug the headphones into the PHONES jack on the HP-G.

■ Before You Switch on the Power...

Before you switch on the power to the electronic piano and the RA-30, make the following settings.

● Lower the Volume

Use the Volume knobs (or Volume slider) to reduce the volume on the electronic piano and the RA-30. This helps prevent damage to the speakers or other areas. After switching on the power, adjust the volume to the appropriate level.

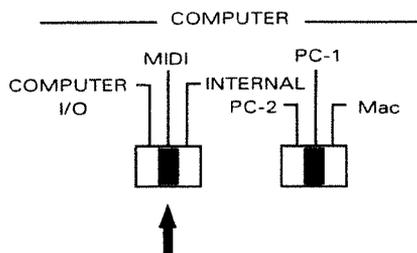
● Setting the Local ON/OFF Switch

If you're using an electronic piano that has a Local ON/OFF switch on the rear panel, set this switch to "OFF."



● If You're Using a Roland HP-G Series Instrument...

Set the COMPUTER switch on the rear panel of the HP-G series instrument to "MIDI."



■ Powering Up

First of all, make sure that the AC adaptor is connected and plugged in correctly.

The RA-30 provides a feature that allows you to quickly select the settings that are appropriate for the kind of instrument connected — whether it be an electronic piano, acoustic piano, or something else. To use this feature, follow the procedure below when switching on the power.

* This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

● If You're Using an Electronic Piano

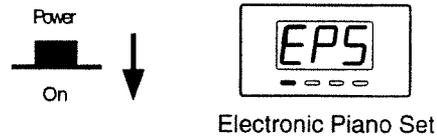
Follow this procedure when using an HP-G series instrument while connected to a keyboard amp or portable stereo.

1. Switch on the power for the electronic piano.

* Be sure to switch on the electronic piano first. Wait a few seconds until it is ready for normal operation.

2. On the RA-30, press the Power switch.

The following message appears in the display, and the settings for the electronic piano are called up.



3. If a keyboard amp or portable stereo is connected, then switch on this playback device.

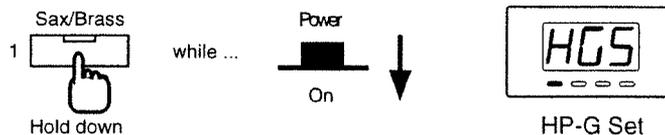
● If You're Using a Roland HP-G Series Instrument Without Hookup to a Keyboard Amp or Portable Stereo...

1. Switch on the power for the HP-G series instrument.

* Be sure to switch on the HP-G series instrument first. Wait a few seconds until it is ready for normal operation.

2. On the RA-30, press the Power switch while holding down the Sax/Brass button in the Tone Group.

The following message appears in the display, and the appropriate settings are called up.



* Turn on power the same way each time.

* You will also need to have the RA-30 set to this mode (HGS) if you intend to record its accompaniment data into a sequencer, such as the MT-200 or MT-120.

■ After the Power Is On...

After the power has been switched on, confirm the following items and make the appropriate settings.

● Setting the MIDI Channels

Set the MIDI channels for the electronic piano (both the transmit channel and the receive channel) to "1." Refer to the owner's manual for the electronic piano if you don't know how to do this.

** If you have connected an instrument in the Roland HP or HP-G series, the default is for the MIDI channels to be set to "1" when you switch on the power. If either of the MIDI channels has been changed, you will need to set it back to "1."*

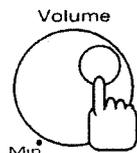
● Setting the Local ON/OFF Switch

If you have connected an electronic piano that has no Local ON/OFF switch on its rear panel, then refer to the MIDI Implementation Chart in the owner's manual for the electronic piano and find the column labeled "AUX Messages." If there is an X in the space for recognition of "Local ON/OFF," it means that the electronic piano does not receive local ON/OFF signals, so local ON/OFF should be set to "OFF." Refer to the owner's manual for the electronic piano if you're not sure how to do this.

** If there is an O in the space for recognizing "Local ON/OFF" under "AUX Messages," it means that the electronic piano receives local ON/OFF signals, and so there is no need to make any setting.*

** If you want to disconnect the electronic piano from the RA-30 and play the piano alone, you need to return the local ON/OFF setting to "ON." See the electronic piano's manual for a description of how to do this.*

● Adjusting the Volume



Use the Volume knob to adjust the volume of the RA-30. For the volume of the electronic piano, use the instrument's volume knob (or slider) to make adjustment for this as well.

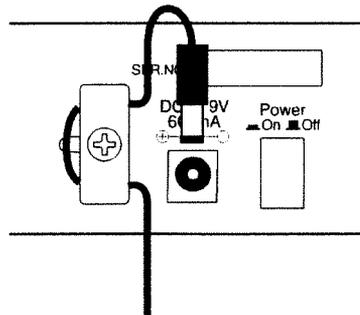
■ Making the Connections

To prevent malfunctions, and/or damage to speakers (or other equipment) be sure to switch off all equipment, and turn the volume all the way down before making any connections.

● Installing the RA-30

Use a small table that is at about the same height as the acoustic piano's keyboard. Be sure to use a table that will not wobble or tip over easily. Place the table to the left of the acoustic piano, and then put the RA-30 on top of the table.

● Plugging in the AC Adaptor



1. Plug the AC adaptor into the DC In jack on the rear panel.

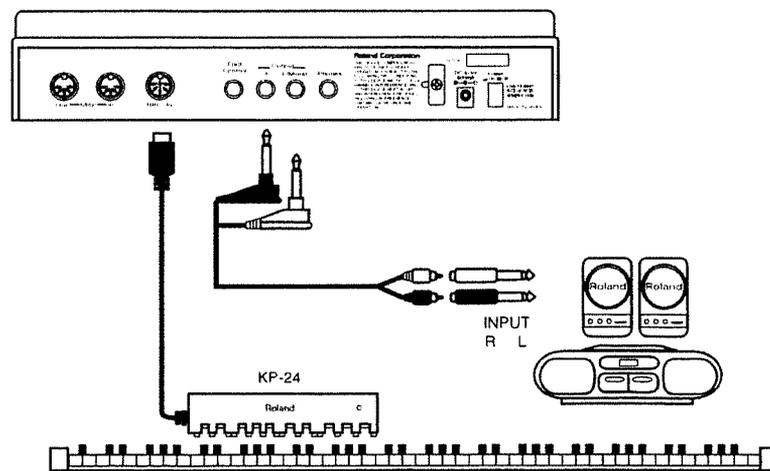
* Be sure to use only the AC adaptor supplied with your RA-30.

2. Hook the AC adaptor cord around the cord hook. You can prevent the plug from being accidentally pulled out.

3. Plug the AC adaptor into a power outlet.

● Connecting to the Acoustic Piano

You need a KP-24 Acoustic Keyboard Pickup (sold separately) for connecting with an acoustic piano.



○ Connecting the RRC Cable from the KP-24

When shipped from the factory, the KP-24's transmit channel is set to "1." For connecting the KP-24 to the RA-30, the transmit channel should be set to "1." If the transmit channel has been changed to something else, then be sure to change it back to "1" before making the connection. If you're not sure how to do this, see the owner's manual for the KP-24.

1. Connect the RRC cable for the KP-24 to the RRC In connector on the RA-30.
2. Install the KP-24 on the keyboard of the acoustic piano. See the KP-24's owner's manual for details on how to do this.

* The RRC-MIDI Box included with the KP-24 is not used.

○ Audio Cable Connections

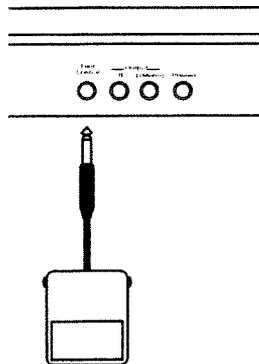
1. Use the supplied audio cables to connect the Output L/R jacks on the RA-30 to the INPUT L/R jacks on the keyboard amp, or to the LINE IN L/R or AUX IN L/R jacks on the portable stereo.

* If you're making a monaural (single cable) connection, be sure to use the L (Mono) jack.

● Connecting a Pedal Switch

1. Connecting a pedal switch (Roland DP-2; available separately) to the Foot Control jack on the RA-30 lets you use the pedal switch to perform the same operations as the Start/Stop button.

* You can also use the pedal switch for a variety of other functions as well. If you want to know more, see "Changing the Pedal Functions" (p.39).



■ Before You Switch on the Power...

Before you switch on the power to the RA-30, make the following settings.

● Lower the Volume

Use the Volume knob to reduce the volume on the RA-30. This helps prevent damage to the speakers or other areas. After switching on the power, adjust the volume to the appropriate level.

■ Powering Up

First of all, make sure that the AC adaptor is connected and plugged in correctly.

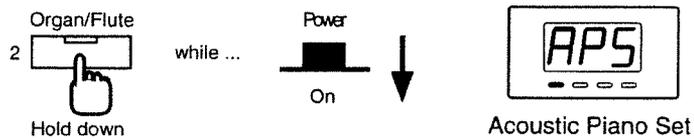
The RA-30 provides a feature that allows you to quickly select the settings that are appropriate for the kind of instrument connected — whether it be an electronic piano, acoustic piano, or something else. Use the following procedure to obtain settings appropriate for an acoustic piano.

* Turn on power the same way each time.

* This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

1. On the RA-30, press the Power switch while holding down the Organ/Flute button in the Tone Group.

The following message appears in the display, and the settings for the acoustic piano are called up.

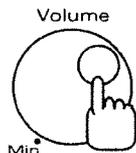


2. If a keyboard amp or portable stereo is connected, then switch on this playback device.

■ After the Power Is On...

After the power has been switched on, check the following and make the appropriate setting.

● Adjusting the Volume



Use the Volume knob to adjust the volume of the RA-30.

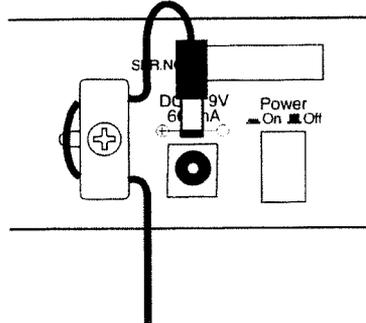
Chapter 1-3 Getting Ready for Connection to Another MIDI Device **MIDI**

If you want to connect the RA-30 to a synthesizer keyboard or some other type of MIDI keyboard, then read "Chapter 1-1 — Getting Ready for Connection to an Electronic Piano" (p.8).

■ Making the Connections

To prevent malfunctions, and/or damage to speakers (or other equipment) be sure to switch off all equipment, and turn the volume all the way down before making any connections.

● Plugging in the AC Adaptor



1. Plug the AC adaptor into the DC In jack on the rear panel.

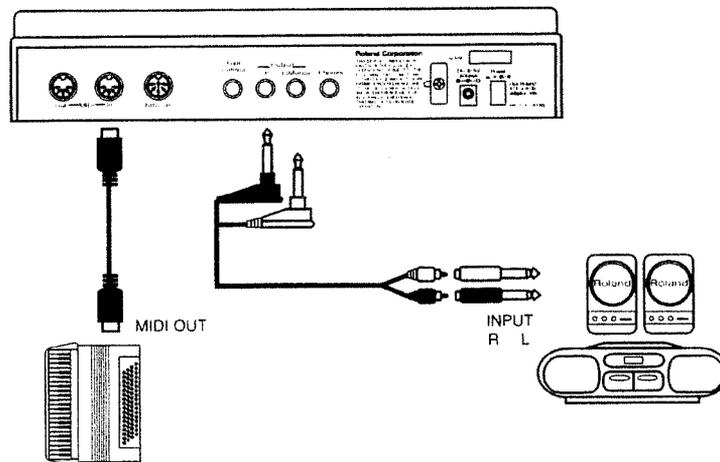
* Be sure to use only the AC adaptor supplied with your RA-30.

2. Hook the AC adaptor cord around the cord hook.
You can prevent the plug from being accidentally pulled out.

3. Plug the AC adaptor into a power outlet.

● Connecting to the Other MIDI Device

Here's how to connect the RA-30 to a MIDI accordion or a similar MIDI instrument.



○ MIDI Cable Connections

1. Use a MIDI cable to connect the MIDI OUT connector on the MIDI instrument to the MIDI In connector on the RA-30.

○ Audio Cable Connections

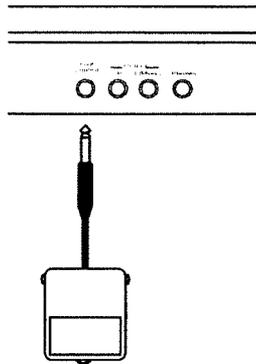
1. Use the supplied audio cables to connect the Output L/R jacks on the RA-30 to the INPUT L/R jacks on a keyboard amp, or to the LINE IN L/R or AUX IN L/R jacks on a portable stereo.

* If you're making a monaural (single cable) connection, be sure to use the L (Mono) jack.

● Connecting a Pedal Switch

1. Connecting a pedal switch (Roland DP-2; sold separately) to the Foot Control jack on the RA-30 lets you use the pedal switch to perform the same operations as the Start/Stop button.

* You can also use the pedal switch for a variety of other functions as well. If you want to know more, see "Changing the Pedal Functions" (p.39).



● Connecting Headphones

You can use the headphones for practice at night, or at other times when you don't want to use the speakers.

Plug the headphones into the Phones jack on the RA-30.

* The Phones jack on the RA-30 is a standard stereo phone jack. If you wish to use headphones with a stereo-mini plug, you will need to use an adaptor to convert it to the 1/4" phone type.

■ Before You Switch on the Power...

Before you switch on the power to the MIDI instrument and the RA-30, make the following settings.

● Lower the Volume

Use the Volume knobs to reduce the volume on the RA-30. This helps prevent damage to the speakers or other areas. After switching on the power, adjust the volume to the appropriate level.

■ Powering Up

First of all, make sure that the AC adaptor is connected and plugged in correctly.

The RA-30 provides a feature that allows you to quickly select the settings that are appropriate for the kind of instrument connected — whether it be an electronic piano, acoustic piano, or something else. Use the following procedure to obtain settings appropriate for a MIDI instrument that you have connected to the RA-30.

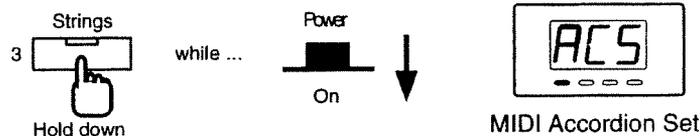
- * Turn on power the same way each time.
- * This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

1. Switch on the power for the MIDI instrument you have connected to the RA-30.

- * Be sure to switch on the MIDI instrument first.

2. On the RA-30, press the Power switch while holding down the Strings button in the Tone Group.

The following message appears in the display, and the settings for the MIDI instrument are called up.



3. Switch on the power for the keyboard amp or portable stereo.

■ After the Power Is On...

After the power has been switched on, check the following items and make the appropriate settings.

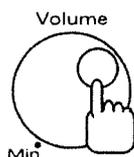
● Setting the MIDI Channel

On the MIDI accordion, set the MIDI channels for parts (the channels it will use to send on) to the channels listed below.

Melody Part	1
Chord Part	3
Bass Part	2

Refer to the owner's manual for the MIDI accordion if you don't know how to set these channels.

● Adjusting the Volume



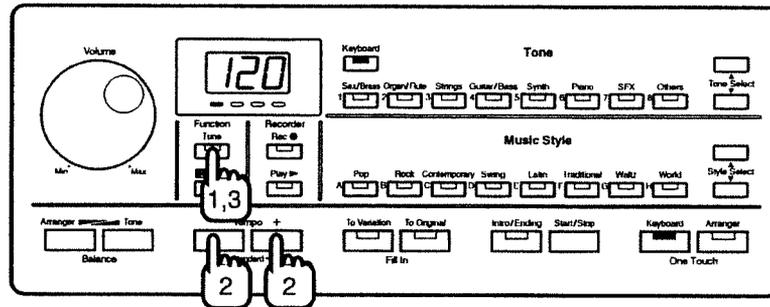
Use the Volume knob to adjust the volume of the RA-30.

■ Adjusting Reference Pitch – Tuning

When you're using the RA-30 to play along with an electronic piano, an acoustic piano, or some other instrument, it is important to have the RA-30's reference pitch matched properly with the other instrument, otherwise you will not be able to produce the kind of music you hope for. The reference pitch commonly refers to the pitch of the middle A key on the keyboard, and is expressed in hertz.

To tune the RA-30, you simply need to alter the frequency of the reference pitch.

* If you have the RA-30 connected to an HP-G series instrument and are playing with no keyboard amp or portable stereo hooked up, there is no need to adjust the tuning of the RA-30.



1. Press the Tune button.

The light for the Tune button comes on, indicating that tuning can now be performed. The RA-30 emits a note for tuning (middle A [middle la]). You need to tune this note to middle A (middle la) on the electronic or acoustic piano.

2. Press the Tempo +/- buttons to tune the RA-30.

Pressing the + button raises the pitch.
Pressing the - button lowers the pitch.

The pitch is shown as a value from 27.0 to 40.0 to 53.0 in the display, which represent the frequencies of 427.0 to 440.0 to 453.0 Hz.



* Pressing the Tempo - and + buttons at the same time returns the RA-30 to the standard pitch (A4 = 440 Hz, displayed as "40.0").

3. When you're done tuning, press the Tune button again to make the Tune button light go out and return the RA-30 to the play mode.

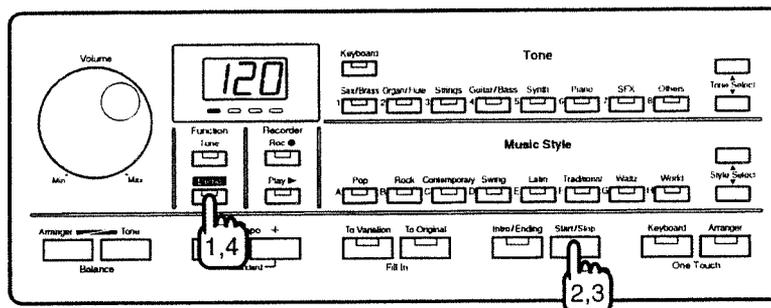
■ Listening to the Demo Songs

The RA-30 has three built-in tunes that demonstrate the use of a wide range of Tones and Music Styles. These tunes are called Demo songs.

To start off with, try listening to the Demo songs and find out for yourself what features the RA-30 has to offer.

* See back cover for details on the Demo songs.

* If you have connected an HP-G series instrument, but no keyboard amp or portable stereo is connected, you cannot play a Demo song from the HP-G's speaker. If you want to hear a Demo song, you need to connect headphones to the RA-30.



1. Press the Demo button.

The indicator lights up and the number of the song appears in the display.



Song number

2. Press the Start/Stop button.

The song number 1 will start playing.

3. To stop playback of the Demo songs, press the Start/Stop button again.

* These are the only controls that work while the Demo songs are playing:

- Start/Stop button
- Volume knob

When you want to hear another song, after finishing step 1 above, use the Tempo +/- buttons to choose the Demo song you want to hear. When you choose ALL, the following appears in the display and the three Demo songs are played one after another.



All songs played

* You can't change songs during play. To listen to a different song, first stop play by pressing the Start/Stop button, then choose the new song.

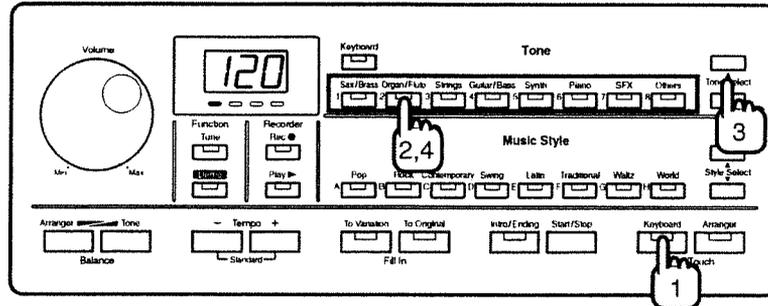
4. To return the RA-30 to the mode for normal play, press the Demo button again. This makes the indicator go out.

Chapter 3 Let's Play!

■ Playing Tones **E. P. / A. P. / MIDI**

The RA-30 has built-in sounds for sax, organ, guitar, and a wide variety of other instruments. These sounds are called Tones. The Tones are divided into eight Groups. Each Group also comes with many Variations, letting you choose just the Tone you want for your song.

Using the full keyboard of an electronic piano to play the RA-30's Tones without using the RA-30's Arranger function is called "Tone Play." In this section we'll take a look at how to perform Tone Play.



● Getting Ready for Tone Play

1. Press the **Keyboard** button in the **One Touch** pair. The button's indicator lights up. The indicator on the Keyboard button among the Tone Group buttons also lights up, and the sound of the electronic piano is selected. Play the keyboard and make sure that you can hear the electronic piano.

* If you can't hear the electronic piano, the piano is set to the wrong MIDI channel. See "After the Power Is On..." (p.12).

* If you're using an acoustic piano or if you have connected an instrument such as a MIDI accordion, then no sound is played while the Keyboard button for Tone Group is illuminated. You need to move on to the next step ("How to Choose a Tone Group").

● How to Choose a Tone Group

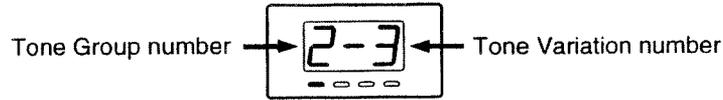
2. Press any one of the **Tone Group** buttons, and confirm that its indicator has lighted. Now you can play Tones from the Group which has its button lighted. Play the keyboard to check the sound of the RA-30.

* If you're using an acoustic piano, the two octaves where the KP-24 is located are the range for Tone Play. No Tone will sound if you play a key outside this range. If you want to change the pitch of a Tone, you should use the Octave Shift function. See "Changing the Pitch (Register) of a Tone by Octaves" (p.42).

● How to Choose a Tone Variation

Each Tone Group has a large number of Tone Variations. These sound similar but have distinctive characteristics, giving you a selection to choose from for your performances.

3. Use the **Tone Select** up/down buttons to choose a **Tone Variation**. The indicator for the Tone Group button flashes, and the Group number and Variation number for the Tone you've selected appear in the display.



Each press of a Tone Select button changes the Tone Variation. Play the keyboard to see how the Tone has changed.

- * *The number of Tone Variations available varies from one Tone Group to another. Refer to the Tone Chart for the names of the various Tones and details of their Tone Variations (p.50).*
- * *You can't choose a Tone Variation while the Keyboard button in the Tone Group is lit up. At step 2, press one of the Tone Group buttons.*

● Storing a Tone Variation Choice

The selections for a Tone Variation you have made so far are only temporary. Whenever you select from a different Tone Group (or perform some other operation), the unit will go back to the first Tone Variation (or, one previously stored in memory). By storing your choice of Tone Variation, you can later select that Tone Variation immediately, simply by pressing the Tone Group button.

4. **Press a Tone Group button while it is flashing, and the Tone Variation that you've selected is stored in memory.**
The Tone Group button stops flashing and remains continuously lit.

- * *Note that for all Groups, Variation selections return to the first Tone when the power is switched off even if you saved them this way. However, there is a method for storing them even while power is off. See "Tone and Style Backup" for details (P.40).*

■ Playing Drums **E. P. / A. P. / MIDI**

The RA-30 can play Tones from a large variety of scaled instruments, but it also has built-in Drum Tones for percussion performances. Drum Tones let you play a different drum sound with each key on the keyboard.

Drum Tones include the eight types at the others button (Variation No. 17-24), and one other that can be selected with the SFX button (Variation No. 17).

* See the Drum Tone Chart for a list of the Drum Tones that can be played with the different keys (p.51).

See "How to Choose a Tone Group" and "How to Choose a Tone Variation" for details on how to choose a Drum Tone.

* If you're using an acoustic piano, you can play drum sounds in the two octaves where the KP-24 is located. No Drum Tone will sound if you play a key outside this range. If you want play a drum sound outside this range, you should use the Octave Shift function. See "Changing the Pitch (Register) of a Tone by Octaves" (p.42).

■ Using Styles **E. P. / A. P. / MIDI**

The RA-30 features an Arranger that makes it possible for a single performer to enjoy ensembles in a wide range of musical genres, with just simple keyboard play. The Arranger automatically adds features such as rhythm, bass, and backing in accord with the built-in music styles covering each genre. By using the Arranger, you can get an automatic accompaniment in the Music Style you've chosen that is matched to the chords you play with the left hand. You can then play the melody with the right hand while adding the Music Style accompaniment with the left hand.

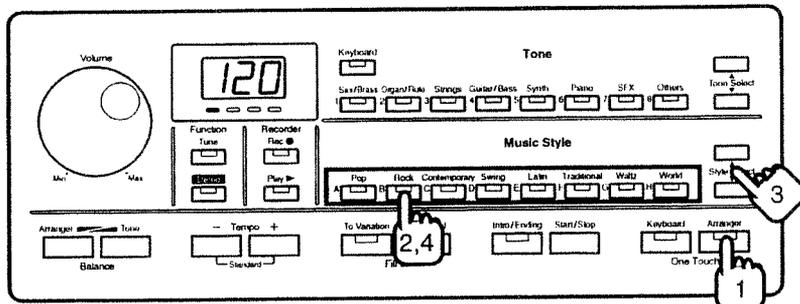
Using this Arranger function in a performance is called "Style Play." Now let's try playing with the Music Styles in the RA-30.

What's a Music Style?

There are many types of music in the world, and each type has its own unique features. Jazz, for instance has a "jazziness" that we can perceive, and classical music also has qualities that make it distinct from other types of music. This seems to be because the particular rhythms, tempos, instruments used, and phrasing combine and interact to give a certain kind of music its own particular character. A collection of such factors grouped according to a particular musical genre is called a "Music Style." For each Style, you can enjoy automatic accompaniment made up of the rhythms, bass, and chords for the particular Style, or use just the rhythm part. The RA-30 offers a large number of built-in styles grouped into eight different categories.

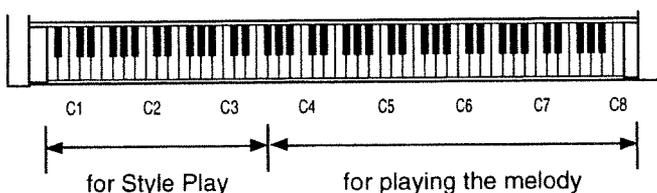
Music Style Sticker

A "Music Style" sticker was supplied with the RA-30. You may want to affix it to the top of the unit so you always have a convenient reference.



● Getting Ready for Style Play

1. Press the Arranger button for One Touch. The button's light comes on. This turns on the Arranger function, which lets you perform Style Play under the following conditions.
 - The F#3 and G3 keys on the keyboard of the electronic piano mark a boundary, with the keys to the left used for Style Play and the keys to the right used for playing the melody.



- * When the Arranger function is on, the right-hand keys play Tones, but the left-hand keys do not.
- If you're using an acoustic piano, the two-octave range where the KP-24 is located is for Style Play with the left hand. Playing keys in any other part of the keyboard has no effect on Style Play. Also, you can't play the Tones of the RA-30 when the Arranger function is on.
- If you've connected a MIDI accordion, you will be able to play the melody with the keyboard, while performing Style Play with the chord and bass buttons.
- Sync Start with Intro is switched on (see "Starting and Stopping Style Play," p.25).
- The Tone and tempo that best match the currently selected Music Style are chosen automatically.

● How to Choose a Style Group

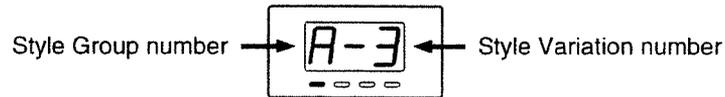
2. Press any one of the Style Group buttons (confirm that its indicator has lighted).

● How to Choose a Style Variation

Each Style Group has a large number of Style Variations. Try playing in a number of different Styles to see how they sound.

3. Use the Style Select up/down buttons to choose a Style Variation.

The indicator for the Style Group button flashes, and the Group number and Variation number for the Style you've selected appear in the display.



Each press of a Style Select button switches you to a different Style Variation.

* *The number of Style Variations varies from one Style Group to another. Refer to the Music Style Chart to see the different Style Names and the numbers of Style Variations (p.53).*

● Storing a Style Variation Choice

The selections for a Style Variation you have made so far are only temporary. Whenever you select from a different Style Group (or perform some other operation), the unit will go back to the first Style Variation (or, one previously stored in memory). By storing your choice of Style Variation, you can later select that Style Variation immediately, simply by pressing the Style Group button.

4. Press a Style Group button while it is flashing, and the Style Variation that you've selected is stored in memory. The Style Group button stops flashing and remains continuously lit.

* *In addition to the above method, you can also store a Style Variation choice by playing the currently selected Music Style. See the next section for instructions on how to start Style Play.*

* *Note that for all Groups, Variation selections return to the first Style when the power is switched off even if you saved them this way. However, there is a method for storing them even while power is off. See "Tone and Style Backup" for details (p.40).*

● How to Choose a Tone During Style Play

Each Music Style has preset melody (right-hand) Tones matched to the particular Style. When you choose a Style, such Tones are selected automatically. If you prefer to play another Tone, first select the Style and then choose the Tone. The sections "How to Choose a Tone Group" and "How to Choose a Tone Variation" explain how to do this (p.21).

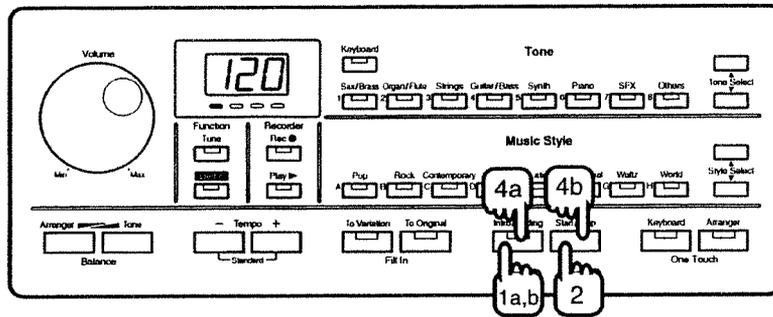
* *You can also set up the system so that no Tone is automatically selected when you choose a Style. For details, see "Choosing a Music Style Without Changing Tone or Tempo" (p.34).*

● Starting and Stopping Style Play

In addition to starting or stopping Style Play in the normal manner, you can also start playing with an intro added first, or stop playing with an ending added. In these cases, an intro or ending phrase that is optimally matched to the selected Style is played.

The RA-30 is set up so that Style Play is started automatically whenever you play a chord with the left hand, no matter which kind of start you are using. This function is called Sync Start.

○ When Starting Style Play



1. Confirm that the indicator on the Arranger button for One Touch has lighted up. If it doesn't, start over again with the procedure described in "Getting Ready for Style Play" (p.24).

The light for the Intro/Ending button should be flashing. This means that Style Play with an intro will start if you play a chord on the keyboard with the left hand or press the Start/Stop button.

* This state is enabled automatically when you press the Arranger button.

* All four Beat Indicator lights flash.

- a. Pressing the Intro/Ending button while in this state makes the button light go out. This means that Style Play without an intro will start if you play a chord on the keyboard with the left hand or press the Start/Stop button.
- b. Pressing the Intro/Ending button again makes the button light flash and returns you to a state that lets you perform Style Play with an intro.

2. Play a chord on the keyboard with the left hand or press the Start/Stop button to start Style Play.
3. Try starting Style Play and then changing the chord you play with the left hand. When the chord changes, Style Play also changes right along with it.

○ When Stopping Style Play

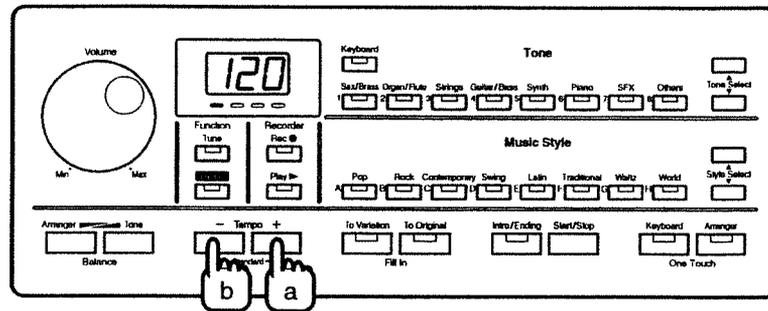
4. Press the Intro/Ending button or the Start/Stop button.
 - a. If you press the Intro/Ending button, Style Play stops with an ending added.
 - b. Pressing the Start/Stop button makes Style Play stop at the same time.

* The number of bars in the intro and ending varies according to the Style. Take a look at the Music Style Chart for more information (p.53).

○ When Starting Style Play Again

1. When starting Style Play again, carry out the steps explained in "How to Choose a Style Group." (p.24)

■ Changing the Tempo for Style Play E. P. / A. P. / MIDI



You can use the Tempo -/+ buttons to vary the speed (tempo) of Style Play however you like.

a. Press the Tempo + button for a faster tempo.

b. Press the Tempo - button for a slower tempo.
The display shows the current tempo.

* *The Beat Indicators make it easy to check the speed and beat of the tempo. A red Beat Indicator lights on the first beat, and green ones light on the second and later beats.*

Tempo Number

The tempo number shows the speed of a song as the number of quarter notes per minute of play. The larger the number, the faster the tempo. You can set this to any number from 20 to 250.

Each Music Style is preset with a tempo value that best matches that particular Style. This is called the "standard tempo."

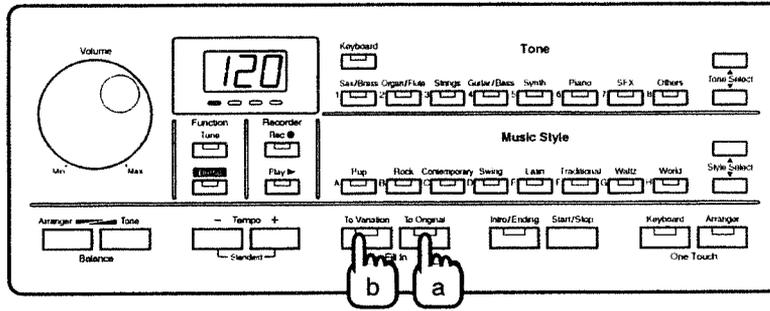
If you choose a different Style while the Arranger button is lit up, the tempo changes to the standard tempo for the currently selected Style. You should change the tempo after first selecting the new Style. If you've changed the tempo but want to go back to the standard tempo, press the Tempo + button and - button at the same time.

* *During Style Play, you can also choose a new Style and keep the tempo for the previous style, without having to switch to the standard tempo for the new Style. If you want to know more, see "Choosing a Music Style Without Changing Tone or Tempo" (p.34).*

■ Inserting a Fill-In and Changing the Accompaniment Pattern E. P. / A. P. / MIDI

The Music Style can add accompaniment features like rhythm, bass, and backing, depending on the musical genre, but each Music Style also offers another type of accompaniment pattern. This is called a "Variation," and the basic pattern of accompaniment for the Music Style is called the "Original." You can use these two accompaniment patterns selectively to make a single Music Style more interesting. Also, while playing a tune, music that is different from the basic style of play may be inserted at a juncture in the melody or at a point where the feel of the tune changes. This is called a "Fill-In," and it is used effectively to add expressiveness to the tune. Inserting a Fill-In plays a phrase that is suited to the selected Style.

● How to Select the Original and the Variation

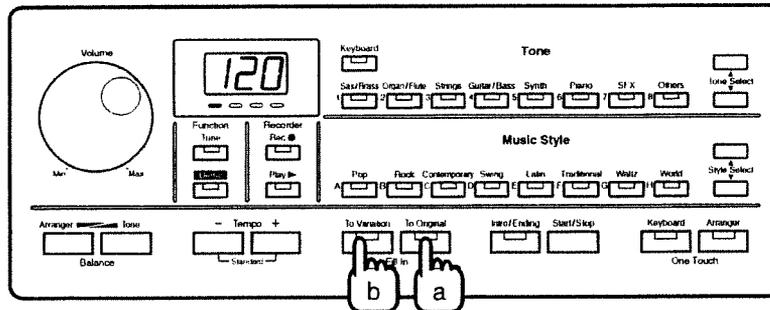


- a. **To start play from the Original accompaniment pattern**
Before starting Style Play, press the To Original button of the Fill In pair, and confirm the indicator has lighted.
- b. **To start play from the Variation accompaniment pattern**
Before starting Style Play, press the To Variation button of the Fill In pair, and confirm the indicator has lighted.

When you start Style Play, play begins in the accompaniment pattern that you've selected. If you've started with an intro added, then play in the accompaniment pattern that you have selected begins after the intro is played.

● How to Insert a Fill-In

During Style Play, you can press the To Original or To Variation button to add a Fill-In.



- a. **If you press the To Original button**
If you have been playing in the Original accompaniment pattern, then the performance stays in the Original accompaniment pattern after the Fill-In is played.
If you have been playing in the Variation accompaniment pattern, then the performance changes to the Original accompaniment pattern after the Fill-In is played.

Original	Fill-In	Original
Variation	Fill-In	Original

b. If you press the To Variation button

If you have been playing in the Original accompaniment pattern, then the performance changes to the Variation accompaniment pattern after the Fill-In is played. If you have been playing in the Variation accompaniment pattern, then the performance stays in the Variation accompaniment pattern after the Fill-In is played.

Original	Fill-In	Variation
Variation	Fill-In	Variation

* You can also use a pedal switch to toggle between Original and Variation during play without inserting a Fill-In. See "Changing the Pedal Functions" for more details (p.39).

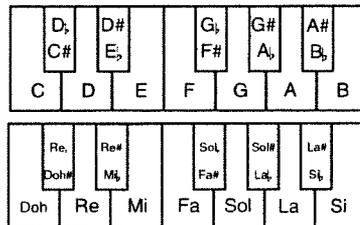
■ Handy Functions for Playing Chords E. P. / A. P.

The RA-30 can start or change Style Play depending on the chords played on the lower section. This means that as long as you have a melody score with the chords named, you can start playing right away. The RA-30 also has functions called Chord Intelligence and Chord Hold that make it even easier to play chords.

● About Chords

The name of a chord expresses the fundamental note of the chord (called the "root") along with symbols that indicate the chord type. For example, the chord name "C M7" describes a major seventh chord with C (doh) as the root.

The root is shown using letters of the alphabet, and has the following relationship to the keys on the keyboard.



The chord type is shown using symbols such as "M7," "m," and "m7." This shows what kinds of notes are used to make the chord, with the root taken as the fundamental note. As an example, the chord C M7 is composed of four notes: C (doh), /E (mi), /G (sol), and /B (si). In this combination, C (doh) is the root, E (mi) is a major third (four half-steps) higher, G (sol) is a perfect fifth (seven half-steps) higher, and B (si) is a major seventh (11 half-steps) higher.



The chord type "M7" (major seventh) means a combination of notes composed of the root, a major third, a perfect fifth, and a major seventh. Because this has nothing to do with the pitch of the root note, the chord name "DM7" is made up of D (re), /F# (fa #), /A (la), and /C# (doh #).

Refer to the Chord Chart (p.54) for diagrams of many common chords. If you'd like to learn more about chords, it may be helpful to refer to books on musical theory or composition.

● Chord Intelligence (Playing Chords with Simple Fingering)

The RA-30 can recognize and produce Style Play for chords played on the lower section — but of these, seven frequently used typical chord types can be played with simplified fingering. For example, a C chord ordinarily requires you to play doh, mi, and sol. But with the RA-30, all you have to do is play the root of the chord (doh) — there is no need to play the other two keys. This function is called Chord Intelligence.

* *When the unit is switched on, the default settings call for the Chord Intelligence feature to be ON. If you prefer to have it OFF for playing Styles, refer to "Turning Chord Intelligence On/Off." (p.43)*

Below is a description of the keyboard fingering when using this function. See the Chord Chart (p.54) for the chords that are made with each root note.

Circle : The sounds making up the chord

Asterisk : The key to be played

Major

Play the root note of the chord. Example: C



Minor (□ m)

Play the root and the note three half-steps (a minor third) higher. Example: Cm



Seventh (□ 7)

Play the root and the note two half-steps (a major second) lower. Example: C7



Minor Seventh (□ m7)

Simultaneously play the root, the note three half-steps (a minor third) higher, and the note two half-steps (a major second) lower. Example: Cm7



Major Seventh (□ M7)

Play the root and the note one half-step (a minor second) lower. Example: CM7



Minor Major Seventh (◻ mM7)

Simultaneously play the root, the note three half-steps (a minor third) higher, and the note one half-step (a minor second) lower. Example : CmM7

**Diminished (◻ dim)**

Play the root and the note six half-steps (a diminished fifth) higher. Example: Cdim

**Chord Notation**

Many different notation systems are used to indicate chord types. For instance, C major is normally written "CMaj," but it sometimes may be expressed only as "C." Here are some examples of the many methods used for chord notation.

Major	: Maj, Δ, or no notation
Minor	: Min, min, or -
Major seventh	: Maj7, maj7, or Δ7
Minor seventh	: min7 or -7
Diminished	: dim
Minor seventh flat fifth	: ∅, min7-5, or min7 (♭5)

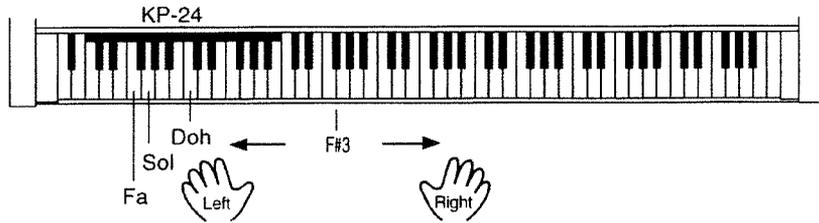
* "Minor seventh flat fifth" is also called "half diminished."

● Chord Hold (Holding Chords Played with the Left Hand)

Chord Hold is a function that continues play of the music style while maintaining the sounds played on the lower section of the keyboard. The chord played on the lower section is held until you play the next chord. This lets you play a chord, release the keys, and get ready to play the next chord.

Try Playing a Simple Song E. P. / A. P.

So far we've taken a look at the functions for intros and endings, Original and Variation patterns, and Fill-Ins. Now let's try putting all these functions to use to play the following simple song,



When The Saints Go Marching In

American Traditional

C 3
(Three-measure Intro)

Right C E F G C E F
Left Doh

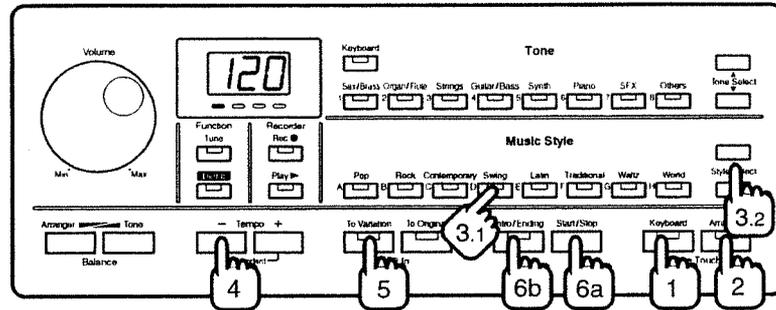
Right G C E F G E C E
Left

Right D E E D C C E G
Left Sol Doh

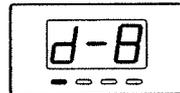
Right G F E F G E C D
Left Fa Doh Sol

1. C C E F C Doh
2. C

To Variation Intro/Ending



1. Press the **Keyboard** button for **One Touch** to make the button light come on.
First, try playing the melody with just the sound of the electronic or acoustic piano. Once you've got the fingering down, then try playing the chords at the same time.
2. Press the **Arranger** button to make the button light up.
3. Use the [**Swing**] **Style Group** button and the **Style select** button to choose the **Dixieland** style.
The Group number and Variation number for the Style appear in the display.



The accompaniment starts when you play "Doh" with the left hand, so you should start playing the melody after the 3-bar intro.

4. If the tempo is too fast, use the **Tempo "-"** button to adjust it.
5. Around the point where "To Variation" is indicated on the score, press the **To Variation** button with the left hand.
6. To stop playing, press the **Start/Stop** button or the **Intro/Ending** button.

* At your next practice session, start with step 1 above.

● Some Tips

- **First, play the accompaniment with just the left hand.**

Once you play a chord and release the keys, Style Play continues in the same chord until you play a different one. After you play one chord, get ready to play the next one.

- **When you play a chord, hit all the keys at the same time.**

When you play a chord, the accompaniment won't be correct if you play the keys one at a time. Be sure to hit all the keys simultaneously when playing chords.

- **Listen carefully to the rhythm as you play.**

Style Play automatically changes the chord progression of the accompaniment at the same time that the keyboard is played. Listen closely to the rhythm and try to play the chords with the correct timing. If chords do not play as you expect, try playing them a little earlier.

- **Watch your timing when you press the buttons.**

If your timing is off when you press the To Variation or To Original button, the Fill-In may be inserted in the wrong measure. Listen closely to the rhythm and press the button right before the place where you want to insert the Fill-In. The same thing holds true for the ending as well — you need to watch your timing when you press the Intro/Ending button. The ending starts at the first beat in the next bar after you press the button.

- **Practice the right-hand melody.**

When Style Play is stopped, you can play just the melody with the right hand. After you can play the melody smoothly with the right hand, add the left-hand part.

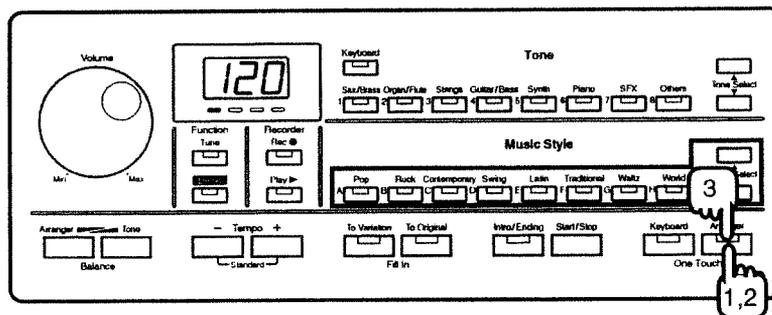
■ The Number of Sounds That Can Be Played Simultaneously

E. P. / A. P. / MIDI

The sound generator inside the RA-30 can simultaneously produce up to 24 sounds (voices) during Tone Play or Style Play. If you play more than this number, some sounds will be dropped out. There are also some Tones that use two or more sounds (voices), so playing Tones like these further reduces the number of sounds that can be played at the same time. The Tone Chart shows you the number of voices used by each Tone (p.50).

■ Choosing a Music Style Without Changing Tone or Tempo

E. P. / A. P. / MIDI



Hold down more than 2 seconds

If you select a Music Style while the Arranger function is on (with the Arranger button light illuminated), the Tone that best matches the chosen Style is selected automatically. If you choose a different Music Style during Style Play, the tempo automatically changes to the standard tempo for the new Style. Read on to find out how you can choose a new Style without changing the Tone or tempo.

1. Make sure that the Arranger button for One Touch is lit up. If it isn't, press the Arranger button.
2. Hold down the Arranger button for more than two seconds to make the button's light go out.
At this point, the lights on both of the One Touch buttons (Keyboard and Arranger) should be out.

* Even though the light goes out, the Arranger function is still on.

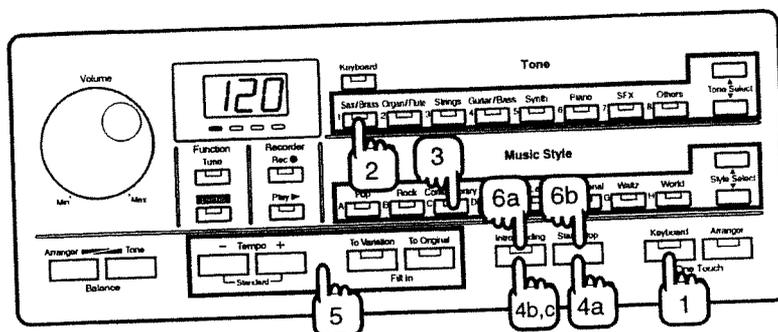
Now, the Tone won't change when you select a new Music Style.
Also, the tempo won't change during Style Play even if you select a new Music Style.

3. To return to the normal Style Play, press the Arranger button again and confirm that its light has come back on.

■ Playing a Music Style Rhythm During Tone Play

E. P. / A. P. / MIDI

You can perform Tone Play together with a Music Style rhythm.



● Starting the Rhythm Accompaniment

1. Press the Keyboard button for One Touch to make the button light come on.
2. Choose a Tone.
3. Choose a Music Style.
- * If you choose a Music Style during Tone Play, the Tone is not selected automatically.
4. There are a number of different ways to start the rhythm accompaniment.
 - a. Pressing the Start/Stop button starts the rhythm with no intro.

Another method is to use Sync Start, which starts the rhythm accompaniment automatically just by playing the keyboard. You can use Sync Start to begin the rhythm accompaniment either with or without an intro.

- * If you are using the RA-30 with an acoustic piano, play the key where the KP-24 is located to begin Sync Start.
- b. Press the Intro/Ending button to make the button light flash. All four of the Beat Indicator lights will also flash. Rhythm accompaniment with an intro will now start if you finger the keyboard or press the Start/Stop button.
- c. If you press the Intro/Ending button again without starting the rhythm accompaniment, the button's light goes out. The four Beat Indicator lights continue to flash. Rhythm accompaniment without an intro will now start if you finger the keyboard or press the Start/Stop button.
- * If you've pressed the Intro/Ending button but decide that you don't want to use Sync Start, go back to step 1 and start over.
- * The tempo won't change even if you choose a Music Style while the rhythm accompaniment is being played.
- * The Original accompaniment pattern for "Piano Arpeggio" (F-8) does not include a rhythm.
5. The methods used to change the tempo (p.27) or insert a Fill-In (p.27) are the same as for Style Play.

● Stopping the Rhythm Accompaniment

6. Press the Intro/Ending button or the Start/Stop button.
 - a. Pressing the Intro/Ending button stops the rhythm accompaniment with an ending added.
 - b. Pressing the Start/Stop button makes rhythm accompaniment stop at the same time.

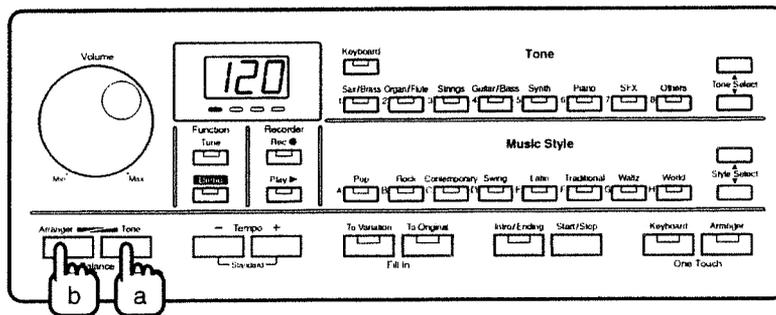
Chapter 4 Try Out Some Handy Functions

The RA-30 comes with a wide range of handy functions that can make your performances with the rich variety of Tones and Music Styles even more enjoyable.

■ Changing the Volume Balance E. P. / MIDI

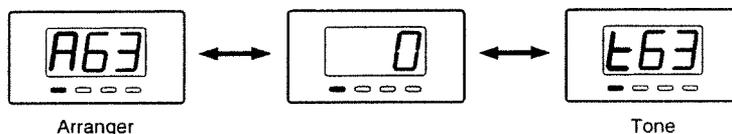
During Style Play, you can adjust the volume for the Tones and the accompaniment (the Arranger) to achieve the right balance.

During Tone Play, you can also adjust the balance for the Tones respective to the rhythm accompaniment.



- a. Each press of the **Tone** button in the Balance pair increases the volume of the Tone in the balance.
- b. Each press of the **Arranger** button in the Balance pair increases the volume of the accompaniment or rhythm in the balance.

The volume balance can be adjusted within the range of 1 to 63 for the Arranger, and 1 to 63 for the Tone, with 0 being the median where they are both equal. The value is shown in the display.



- A63 : At this balance setting, the Tone is at the minimum and the accompaniment or rhythm is at the maximum.
- 0 : At this balance setting, the Tone and the accompaniment or rhythm are equal in volume.
- t63 : With this balance setting, the Tone is at the maximum and the accompaniment or rhythm is at the minimum.

- * Together press both the **Tone** and **Arranger Balance** buttons to quickly set the balance to "0."
- * Use the **Volume knob** if you want to adjust the overall volume level.

If during Tone Play you want to sound only the Tones, then use the balance controls to make the Tones louder. You may be unable to hear the Tones if the rhythm volume is set too high.

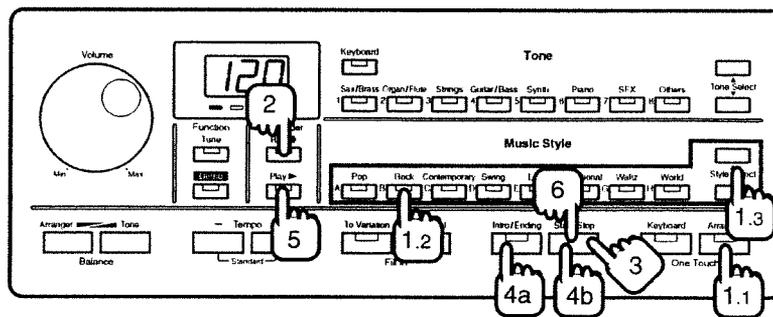
■ Recording a Performance E. P. / MIDI

The RA-30 has a Recorder function that makes it possible for you to store your Style Play and Tone Play performances. This works just like recording with a tape recorder, and makes it easy to record your performances on the RA-30.

Unlike a tape recorder, however, the Recorder function offers special features that you can't get from a tape recorder. For instance, you can increase the tempo without raising the pitch, and you can listen to a recorded performance over and over with no loss in sound quality.

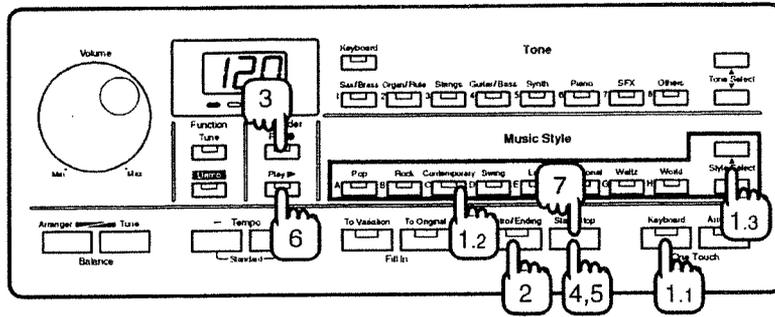
- * The RA-30 can record only one song. When you make a new recording, any previously recorded song is discarded.
- * A song recorded on the RA-30 is preserved in memory even while the power is off.
- * Any song that has been recorded will be discarded if you restore the unit to its factory defaults. (p.45)

● Recording Style Play



1. Press the Arranger button for One Touch and choose a Music Style (p.24).
 - * You can choose a Tone (p.21) or change the tempo (p.27) to however you like, but be sure to do these operations only after you've selected a Music Style.
 - * If you wish to record a performance with no intro added, press the Intro/Ending button to make the button's light go out.
2. Press the Rec button for Recorder.
 - The light for the Rec button starts to flash, indicating the RA-30 is ready for recording.
 - * Pressing the Rec button again makes the button light go out and cancels this state.
3. Recording starts simultaneously when you finger the keyboard or press the Start/Stop button.
 - The Rec button light also remains lit.
 - * Approximately 5000 notes worth of music can be recorded.
4. To finish recording, press the Intro/Ending button or the Start/Stop button to end the performance.
5. To play back what you've recorded, press the Play button.
 - The Play button light comes on during playback.
 - * If the button's light doesn't come on when you press the Play button, it means that nothing is stored in the recorder. If you want to try the recording over again, be sure to start at step 1.
6. If you want to stop playback of a recorded performance, press the Start/Stop button.
 - * If you want to do recording over again, be sure to start at step 1.

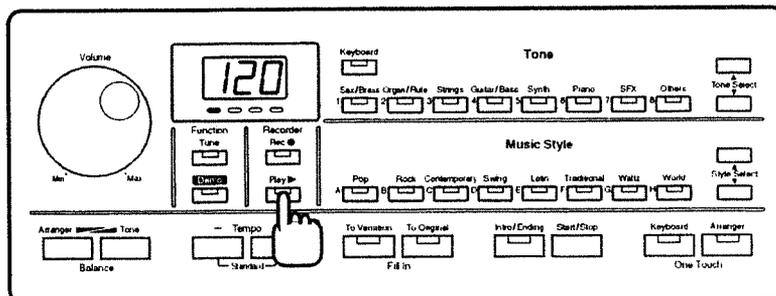
● Recording Tone Play



1. **Press the Keyboard button for One Touch and choose a Music Style (p.35)**
You can choose a Tone (p.21) or change the tempo (p.27) however you like.
2. **Press the Intro/Ending button, and confirm its indicator has lighted.**
All four Beat Indicator lights flash.
 - * When you want to record a rhythm accompaniment without an Intro, press the Intro/Ending button again, and confirm its indicator has gone out.
3. **Press the Rec button for Recorder.**
The light for the Rec button starts to flash, and the RA-30 is ready for recording.
 - * Pressing the Rec button again makes the button light go out and cancels this state.
4. **Recording starts with a rhythm accompaniment when you finger the keyboard or press the Start/Stop button.**
The Rec button light also remains lit.
 - * Approximately 5000 notes can be recorded.
5. **To finish recording, press the Start/Stop button or Intro/Ending button to end the performance.**
6. **To play back what you've recorded, press the Play button.**
The Play button light comes on during playback.
 - * If the button's light doesn't come on when you press the Play button, it means that nothing is stored in the recorder. If you want to do the recording over again, be sure to start at step 1.
7. **If you want to stop playback of a recorded performance, press the Start/Stop button.**
 - * If you want to do the recording over again, be sure to start at step 1.
 - * If you want not to hear a rhythm accompaniment, set the Tone at the maximum volume with the Balance button (p.36).

● Listening to a Song Repeatedly

You can make a song play repeatedly by holding down the Play button for more than two seconds. Press the Start/Stop button to stop playback.



Hold down more than 2 seconds

- * If you record the Ending, the song cannot be played repeatedly.
- * If you record the Intro, then want to repeat the song a number of times, the Normal Music Style will be played instead of the Intro on successive playings.

■ Changing the Pedal Functions E. P. / A. P. / MIDI

By default, the pedal switch performs the same operations as the Start/Stop button, but you can choose to use the pedal switch to perform any of the following six functions.

1. Start/Stop button

Pressing the pedal switch performs the same functions as the Start/Stop button.

2. Fill In button

Pressing the pedal switch performs the same functions as the Fill In button.

If you are currently playing with the Original accompaniment pattern, then the performance changes to the Variation accompaniment pattern after the Fill-In is played.

Similarly, if currently playing using the Variation accompaniment pattern, it switches to the Original accompaniment pattern after the Fill-In is played.

3. Toggle between Original and Variation accompaniment patterns

Pressing the pedal switch toggles the accompaniment pattern between Original and Variation. This is handy for switching between Original and Variation during play without inserting a Fill-In.

4. Intro/Ending button

Pressing the pedal switch performs the same functions as the Intro/Ending button.

5. Hold

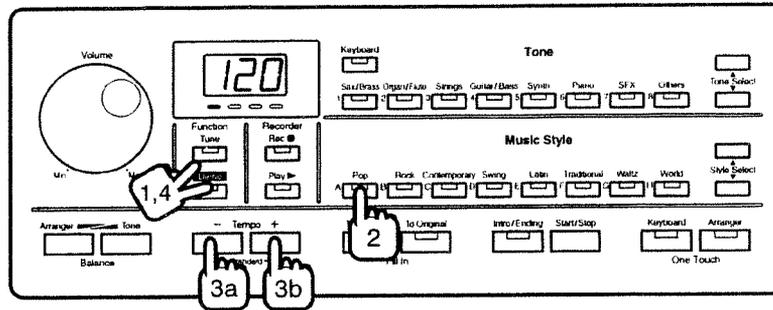
This works just like the damper pedal on an electronic piano. Pressing the pedal switch lets you release fingers from the keyboard and extend (hold) the Tone from the RA-30 sound while the pedal is depressed.

This can be handy if you've got the RA-30 connected with an instrument such as a MIDI accordion.

6. Chord Recognition Off

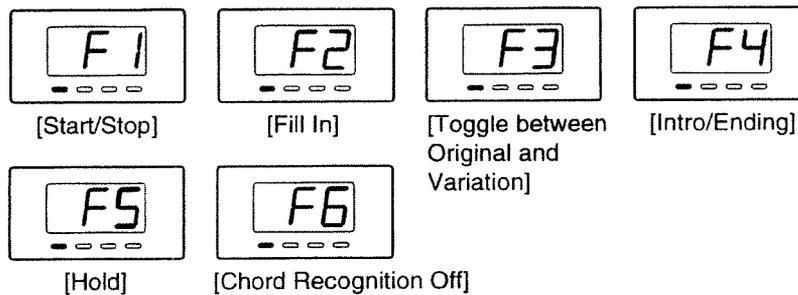
Pressing the pedal switch during Style Play causes no Style Play to occur when you play a chord while holding down the pedal.

This function is handy when you're using the RA-30 with an acoustic piano. If you hold the pedal down after playing a chord, the Style Play for the chord you played before continues, and you can play any melody you like. Style Play is not affected as long as you keep the pedal depressed, no matter what method of play you use. If you want to change the chord progression for Style Play, simply release the pedal, play a new chord, and then step on the pedal again.



● How to Change the Pedal Functions

1. Press the Tune and Demo buttons at the same time.
The lights for the two buttons will start to flash.
2. Press the Pop button for Style Group to make the button light up.
The number of the function currently assigned to the pedal appears in the display.
3. Use the Tempo +/- buttons to make a new setting for the number.



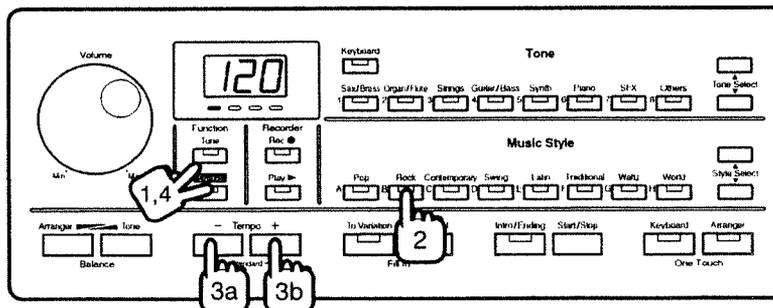
4. After you've made the setting, press the Tune and Demo buttons at the same time to make the lights for the two buttons go out.

* This setting will have automatically reverted to "F1 Start/Stop" the next time you turn power on (unless the Backup function [p.40] was set to "On").

■ Tone and Style Backup E. P. / A. P. / MIDI

When the power is switched off, Variation selections for all Tone Groups and Style Groups return to the number 1 Tones and Styles (p.22, p.25). But if you turn on the Backup function, the Tones and Styles stored before remain in memory and are selected the next time you switch on the power. This can be handy when you want to use the same Tones and Styles right away the next time you play.

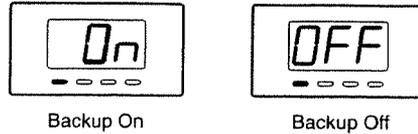
* You can also have the settings for a variety of other functions be remembered as well. These include the: Pedal Functions (p.39), Range for Style Play (p.41), Octave Shift (p.42), Chord Intelligence (p.43), Reverb (p.44), and Chorus (p.45).



1. Press the Tune and Demo buttons at the same time.
The lights for the two buttons will start to flash.

2. Press the Rock button for Style Group to make the button light up.

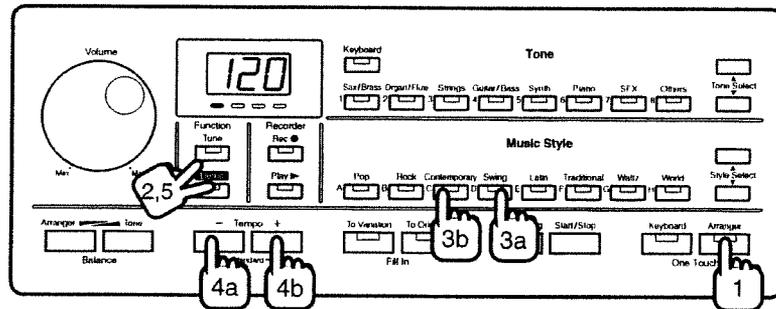
The current state of the Backup function (on or off) appears in the display.



3. Use the Tempo +/- buttons to toggle the setting on or off.
4. After you've made the setting, press the Tune and Demo buttons at the same time to make the lights for the two buttons go out.

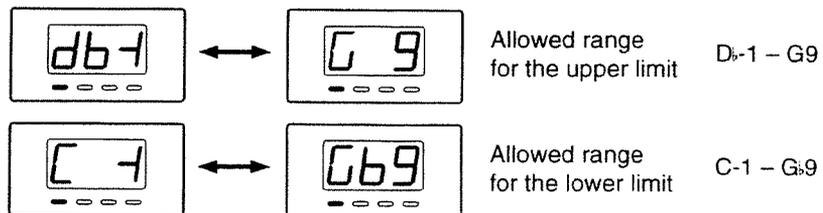
■ Changing the Range for Style Play E. P. / A. P. / MIDI

The range for Style Play has an upper limit (Arranger Keyboard Range High) and a lower limit (Arranger Keyboard Range Low). On the RA-30, you can freely change the positions of these. This makes possible a number of different special performance techniques. For example, you can use the entire keyboard for Style Play, or you can move the range for Style Play to the center of the keyboard and use the sections at either end to play Tones.



1. Press the Arrange button to make the button's light come on.
2. Press the Tune and Demo buttons at the same time.
The lights for the two buttons will start to flash.
- 3a. To change the upper limit, press the Swing button for Style Group to make the button light up.
- 3b. To change the lower limit, press the Contemporary button for Style Group to make the button light up.

The numbers indicating the current range appear in the display.



4. Use the Tempo +/- buttons to set the range. You can also make the setting directly by striking the key on the electronic piano.

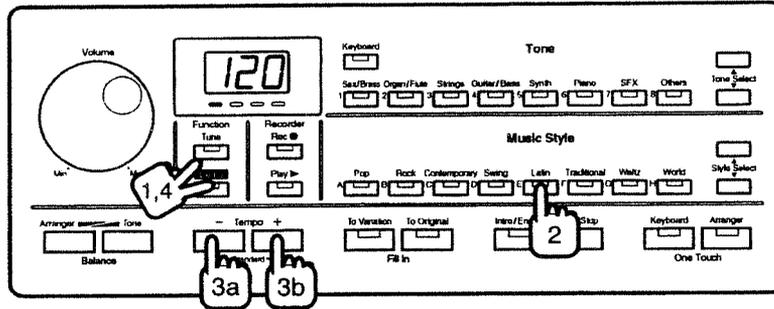
* You cannot set the upper limit to a key lower than the lower limit, or vice versa.

5. After you've made the setting, press the Tune and Demo buttons at the same time to make the lights for the two buttons go out.

■ Changing the Pitch (Register) of a Tone by Octaves

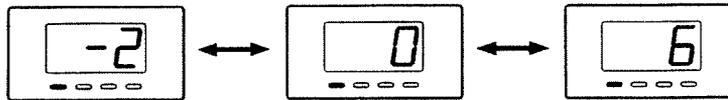
E. P. / A. P. / MIDI

The RA-30 lets you vary the pitch of a Tone in octave increments when necessary. This makes it possible to play a Tone one or more octaves higher or lower than its original pitch. This is called the "Octave Shift" function.



1. Press the Tune and Demo buttons at the same time to make the lights for the two buttons start to flash.
2. Press the Latin button for Style Group, and confirm the button has lighted.

The setting appears in the display.



3a/3b. Use the Tempo +/- buttons to set the amount by which to shift.

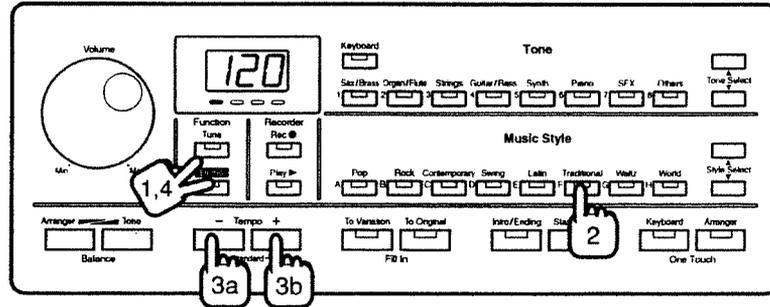
- +6 : Allows play in a register six octaves higher than the pitch of the original Tone.
- +5 : Allows play in a register five octaves higher than the pitch of the original Tone.
- +4 : Allows play in a register four octaves higher than the pitch of the original Tone.
- +3 : Allows play in a register three octaves higher than the pitch of the original Tone.
- +2 : Allows play in a register two octaves higher than the pitch of the original Tone.
- +1 : Allows play in a register one octave higher than the pitch of the original Tone.
- 0 : Allows play in the same register as the original Tone.
- 1 : Allows play in a register one octave lower than the pitch of the original Tone.
- 2 : Allows play in a register two octaves lower than the pitch of the original Tone.

4. After you've made the setting, press the Tune and Demo buttons at the same time to make the lights for the two buttons go out.

* This setting will have automatically reverted to "0" the next time you turn power on (unless the Backup function [p.40] was set to "On").

■ Turning Chord Intelligence On/Off **E. P. / A. P.**

Whenever the unit is switched on, the default settings call for its Chord Intelligence (p.30) feature to be on, allowing you to obtain chords with easy fingering. If you prefer to have it off for playing Styles, follow the steps below to turn Chord Intelligence off. With Chord Intelligence switched off, you can conveniently play chords in different ways. For example, you can play chords minus the note a third above or below the root, or obtain accompaniment that is based on only the root.



1. Press the Tune and Demo buttons at the same time to make the lights for the two buttons start to flash.
2. Press the Traditional button for Style Group, and confirm the button has lighted. The current setting for Chord Intelligence (On or Off) appears in the display.



Chord Intelligence On



Chord Intelligence Off

3. Use the Tempo +/- buttons to switch Chord Intelligence On or Off.
4. After you've made the setting, press the Tune and Demo buttons at the same time to make the lights for the two buttons go out.

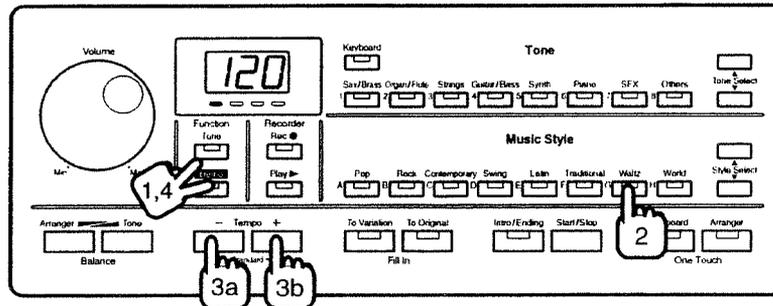
* This setting will have automatically reverted to "On" the next time you turn power on (unless the Backup function [p.40] was set to "On").

■ Adding Reverberation (Reverb) E. P. / A. P. / MIDI

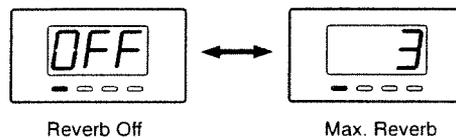
This feature allows you to add a pleasant reverberation to your music, making it sound as if it were being played in a concert hall or other venue.

The RA-30 offers four different levels for the depth of the reverb, allowing you to select the setting that best matches the music you are playing.

* *The same reverb effect will be applied to all Tone and Style performances.*



1. Press the Tune and Demo buttons at the same time to make the lights for the two buttons start to flash.
2. Press the Waltz button for Style Group, and confirm the button has lighted. The current depth at which the effect will be applied appears in the display.



3. Use the Tempo +/- buttons to select the desired depth. At "OFF," no reverb will be applied.
4. Once you've finished making the setting, simultaneously press the Tune and Demo buttons (confirm that the lights on both the buttons go out).

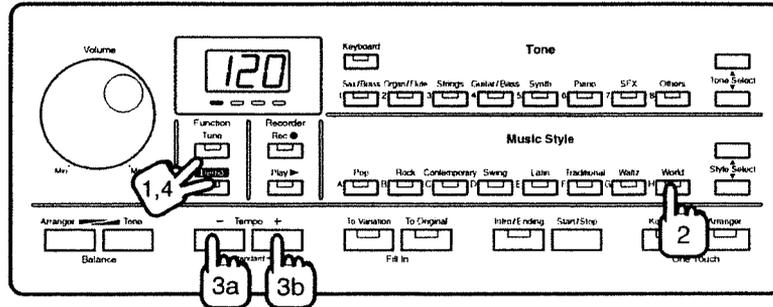
* *This setting will have automatically reverted to "2" the next time you turn power on (unless the Backup function [p.40] was set to "On").*

■ Adding Expansiveness (Chorus) E. P. / A. P. / MIDI

By using Chorus, you can add more presence and a feeling of expansiveness to your music, making it sound as if it were being played by a greater number of instruments, all playing at the same time.

On the RA-30, the Chorus effect can be applied to the Tones that are played.

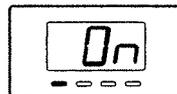
* *The Chorus effect is applied equally to all Tones.*



1. Press the Tune and Demo buttons at the same time to make the lights for the two buttons start to flash.
2. Press the World button for Style Group, and confirm the button has lighted. The current setting for Chorus (On or Off) appears in the display.



Chorus Off



Chorus On

3. Use the Tempo +/- buttons to switch Chorus On or Off.
4. After you've made the setting, press the Tune and Demo buttons at the same time to make the lights for the two buttons go out.

* *This setting will have automatically reverted to "Off" the next time you turn power on (unless the Backup function [p.40] was set to "On").*

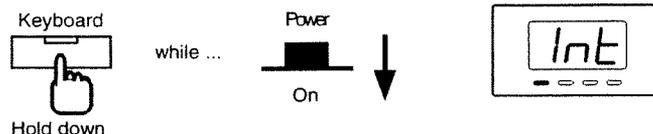
■ Restoring the RA-30 to Its Factory Defaults E. P. / A. P. / MIDI

The RA-30 allows you to quickly restore its factory defaults.

Carry out the procedure below to get the RA-30 to forget all the settings you may have made, and instead place them at what they originally were when you first took it out of the box.

* *Any song that has been recorded will be lost as a result of restoring the unit to its factory defaults.*

1. Hold down the Keyboard button in the Tone Group while you press the Power switch on the rear panel. The following message appears in the display, indicating that the RA-30's factory default settings have been restored.



■ What's MIDI?

The RA-30 can receive and play MIDI performance data from an instrument such as an electronic piano. But just what is MIDI?

MIDI stands for Musical Instrument Digital Interface, a worldwide standard for communicating between digital musical instruments and computers. Performance information can be shared among devices equipped with MIDI connectors simply by linking them with MIDI cables. MIDI is now something that no digital instrument can do without. It would be impossible to use an electronic piano to play the RA-30, or to use the RA-30 to record and play back performances from an electronic piano if it did not support MIDI. The RA-30 is designed to be easy to use even without a detailed knowledge of MIDI, but if you want to get even more out of your digital instrument, the basics of MIDI and the RA-30 covered in this chapter will definitely be of interest.

● About MIDI Connectors

The RA-30 has two types of MIDI connector. Each type works in a different way.

MIDI Out connector

Performance messages from the RA-30 are sent to external MIDI devices from here.

MIDI In connector

Performance messages from external MIDI devices are received here.

● Main MIDI Messages for Controlling the RA-30's Sound Source

The MIDI standard defines many types of MIDI data, or messages. What follows are the main types of MIDI messages that the RA-30's sound source can receive.

Note On Messages

These contain information about what key was played, and its velocity. When this type of message is received, the key's Tone is played at the indicated velocity. However, if a key is played outside the recommended range for the Tone, it may sound at the wrong pitch or not sound at all.

Note Off Messages

These provide information on what key was released. When this type of message is received, the Tone for the key stops sounding.

Pitch Bend Messages

These provide information for changing the pitch smoothly. This type of message is sent, for example, when you move the bender lever (or pitch wheel) on a synthesizer keyboard.

Aftertouch Messages

When a keyboard equipped to produce aftertouch is played, these messages provide information on the amount of pressure used to depress keys. Note that two types exist: Channel Aftertouch messages, affecting the overall Tone; and Polyphonic Aftertouch messages, that affect individual keys. Normally, there is no effect when an aftertouch message is received.

Program Change Messages

These transmit commands for switching Tones and Music Styles. The Tone or Music Style changes when a message of this type is received.

Control Change Messages

Bank Select (No. 0)

Tones can be selected through a combination of Control Change No. 0 and Program Change messages. When the Bank Select message is received and followed by a Program Change message, the system changes to the specified Tone.

Modulation (No. 1)

Normally, vibrato is added to the Tone being played when this message is received.

Volume (No. 7)

Normally, the volume of the Tone being played changes when this message is received.

Panpot (No. 10)

Normally, the position in the stereo image in the output changes when this message is received.

Expression (No. 11)

Normally, the volume of the Tone being played changes when this message is received.

Hold (No. 64)

Normally, when an "on" message (64 to 127) is received, the sound is held until an "off" message (0 to 63) is received.

Sostenuto (No. 66)

Normally, when an "on" message (64 to 127) is received, only the sound being played is held until an "off" message (0 to 63) is received.

Soft (No. 67)

Normally, when this message is received the sound being played is softened.

Effect 1 (Reverb) Depth (No. 91)

Normally, when this message is received a change in the manner the reverb effect is applied occurs.

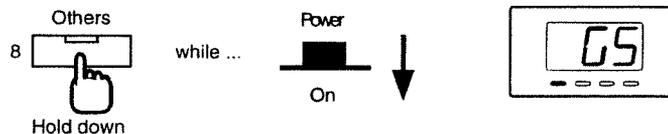
Effect 3 (Chorus) Depth (No. 93)

Normally, when this message is received a change in the manner the chorus effect is applied occurs.

■ Using the RA-30 As a GS or GM Sound Generator

1. Hold down the Others button (Tone Group) while you press the Power switch on the rear panel.

The following message appears in the display, indicating that the RA-30 is now in the mode that allows it to be used as a GS sound module.



The RA-30 can also be switched into the GS or GM sound module mode by sending a "GS Reset" or "GM System On" System Exclusive message (using an external MIDI device).

When in the GM mode, the following message appears in the display:



- * The panel buttons on the RA-30 become completely inoperational while the RA-30 is being used as a GS or GM sound module. Only the Volume knob works. In addition, the Arranger function cannot be used while in this state.
2. To return the unit to its normal mode, either press one of the One Touch buttons (Keyboard or Arranger), or switch the power for the RA-30 off, then back on.

The RA-30 can also be returned to its normal mode by sending it the relevant System Exclusive message, either "Exit GS" or "GM System Off."

- * Check the manual for the external MIDI device to find out if it can send System Exclusive messages (such as "GS Reset" or "Exit GS"), and how it is done..

■ If You Think There Might Be a Problem...

● The RA-30's Tones don't sound. Notes are dropped.

- **Is the power for the RA-30 and the electronic piano switched on?**
See "Before You Switch on the Power..." "Powering Up," and "After the Power Is On..." (p.10, p.14, p.17).
- **Is the volume of the RA-30 turned down too low?**
Adjust with the Volume knob (p.12, p.15, p.18).
- **If a keyboard amp, portable stereo, or similar playback device is connected, is the device's power switched on?**
See "Before You Switch on the Power..." "Powering Up," and "After the Power Is On..." (p.10, p.14, p.17).
- **Is the volume for the keyboard amp or portable stereo turned down too low?**
Increase the volume.
- **Are the MIDI cables and audio cables hooked up as shown in the diagram?** (p.8, p.13, p.16)
- **Is the Tone volume turned down too low with the Balance controls?**
Use the Tone button for Balance to adjust the Tone volume (p.36).
- **Could you be trying to play a Tone outside its proper range?**
Note that you can exceed the proper range for a Tone by using the Octave Shift function. If so, you will need to lower the Tone's pitch. (p.42)
- **Could you be trying to sound more than 24 Voices at the same time?** (p.34)

● There is no sound from the connected electronic piano.

- **Is the volume for the electronic piano turned down too low?**
Increase the volume for the electronic piano (p.12).
- **Is the light for the Keyboard button for Tone Group lit up?**
Press the Keyboard button for Tone Group to make the button light come on (p.21).
- **Are the electronic piano's MIDI transmit and receive channels set to "1"?**
Refer to the manual for the electronic piano and make sure that the MIDI transmit and receive channels are both set to "1." (p.12)

● The sounds from the connected electronic piano are played twice.

- **Did you switch on the power for the electronic piano first?**
First switch on the electronic piano, and then power up the RA-30.
See "Before You Switch on the Power..." "Powering Up," and "After the Power Is On..." (p.10).

** If you have this problem even when the electronic piano has been switched on first, use the piano's controls to set "Local Off." Refer to the piano's manual for instructions on how to do this.*

● Style Play doesn't work. No sound for Style Play.

- **Make sure that the light for the Arranger button is on.**
- **Is the volume of the accompaniment turned down too low with the Balance controls?**
Use the Arranger button for Balance to adjust the Arranger volume.

○ **Did you change the range for Style Play?**

You will not be able to carry out Style Play if the range for Style Play is not set properly. (p.41)

If you are using an electronic piano, you will not be able to obtain Style Play if the range for Style Play that has been set lies outside the range of the keyboard.

If connected with an acoustic piano, remember that the range output by the KP-24 is C1-B2. You will not be able to obtain Style Play if the range for Style Play has been set to a range different than that of the KP-24.

● **I can't add an intro.**

- Press the Intro/Ending button to make the button light flash before starting the performance (p.26).

● **The timing of a Fill-In is off.**

- Press the To Original or To Variation button for Fill In right before the place where the Fill-In is to be inserted (p.33).

● **The timing of an ending is off.**

- An ending starts on the first beat of the next measure after the Intro/Ending button is pressed (p.33).

■ Error Message List

When an error occurs, an error message flashes on and off in the display.



Problem : The batteries are low.

Response : Contact your nearest Roland Service Station.



Problem : A MIDI or RRC cable has been disconnected, or is otherwise causing communication problems.

Response : Check the MIDI or RRC cable connections.



Problem : The RA-30 has received a batch of MIDI data that is too large to process.

Response : Reduce the amount of MIDI data being sent to the RA-30 at one time.



Problem : There is too much performance data to allow further recording, and so recording has stopped.

Response : Reduce the amount of performance data to be recorded on the RA-30. If a MIDI keyboard is connected, use of the pitch bender in particular can create enormous amounts of data, so you may need to reduce pitch bender use.

■ Tone Chart

Tone Group 1 Sax/Brass		Tone Group 4 Guitar/Bass		Tone Group 7 SFX		
	No. of Voices		No. of Voices		No. of Voices	
1	Alto Sax	1	Nylon-Str.Gt.	1	Ice Rain	2
2	Soprano Sax	1	Steel-Str.Gt.	1	Soundtrack	2
3	Tenor Sax	1	Jazz Gt.	1	Crystal	2
4	Baritone Sax	1	Clean Gt.	1	Atmosphere	2
5	Oboe	1	Muted Gt.	1	Brightness	2
6	English Horn	1	Overdriven Gt.	1	Goblin	2
7	Bassoon	1	Distorted Gt.	1	Echo Drops	1
8	Clarinet	1	Gt.Harmonics	1	Star Theme	2
9	Trumpet	1	Acoustic Bass	1	Gt.Fret Noise	1
10	Trombone	1	Fingered Bass	1	Breath Noise	1
11	Tuba	1	Picked Bass	1	Seashore	1
12	Muted Trumpet	1	Fretless Bass	1	Bird	2
13	French Horn	2	Slap Bass 1	1	Telephone	1
14	Brass	1	Slap Bass 2	1	Helicopter	1
15	Synth Brass 1	2	Synth Bass 1	1	Applause	2
16	Synth Brass 2	2	Synth Bass 2	2	Gun Shot	1
				17	SFX Set	*
Tone Group 2 Organ/Flute		Tone Group 5 Synth		Tone Group 8 Others		
	No. of Voices		No. of Voices		No. of Voices	
1	Organ 1	1	Square Wave			
2	Organ 2	1	Saw Wave	1	Sitar	1
3	Organ 3	2	Syn.Calliope	2	Banjo	1
4	Church Organ	1	Chiffer Lead	2	Shamisen	1
5	Reed Organ	1	Charang	2	Koto	1
6	Accordion	2	Solo Vox	2	Kalimba	1
7	Harmonica	1	5th Saw Wave	2	Bag Pipe	1
8	Bandoneon	2	Bass & Lead	2	Fiddle	1
9	Flute	1	Fantasia	2	Shannai	1
10	Piccolo	1	Warm Pad	1	Tinkle Bell	1
11	Recorder	1	Polysynth	2	Agogo	1
12	Pan Flute	1	Space Voice	1	Steel Drums	1
13	Bottle Blow	2	Bowed Glass	2	Woodblock	1
14	Shakuhachi	2	Metal Pad	2	Taiko	1
15	Whistle	1	Halo Pad	2	Melodic Tom	1
16	Ocarina	1	Sweep Pad	1	Synth Drum	1
				16	Reverse Cymbal	1
				17	Drum 1-Standard Set	*
				18	Drum 2-Room Set	*
				19	Drum 3-Power Set	*
				20	Drum 4-Electronic Set	*
				21	Drum 5-TR-808 Set	*
				22	Drum 6-Jazz Set	*
				23	Drum 7-Brush Set	*
				24	Drum 8-Orchestra Set	*
Tone Group 3 Strings		Tone Group 6 Piano				
	No. of Voices		No. of Voices			
1	Violin	1	Piano 1			
2	Viola	1	Piano 2			
3	Cello	1	Piano 3			
4	Contrabass	1	Honky-tonk			
5	Tremolo Str	1	E.Piano 1			
6	Pizzicat Str	1	E.Piano 2			
7	Harp	1	Harpsichord			
8	Timpani	1	Clav.			
9	Strings	1	Celesta			
10	Slow Strings 1	1	Glockenspiel			
11	Synth Strings 1	1	Music Box			
12	Synth Strings 2	2	Vibraphone			
13	Choir"AAHS"	1	Marimba			
14	Choir"OOHS"	1	Xylophone			
15	Synvox	1	Tubular bells			
16	Orchestra Hit	2	Santur			

Drum Tones are indicated with an asterisk. (p.23)

The "Timpani" at location 3-8 will not sound in the upper range (F7 [note no.101] and above).

Drum Tone Chart

Note Number	8-17:Standard Set 8-22:Jazz Set	8-18:Room Set	8-19:Power Set	8-20: Electronic Set	8-21:TR-808 Set	8-23: Brush Set	8-24:Orchestra Set
28	27 High Q Slap						Closed HH [EXC1] Pedal HH [EXC1]
29	Scratch Push [EXC7] 30 Scratch Pull [EXC7]						Open HH [EXC1] Ride Cymbal
31	Sticks						
32	Square Click						
33	Metronome Click						
34	Metronome Bell						
35	Kick Drum 2 / Jazz BD 2					Jazz BD 2	Concert BD 2
36	Kick Drum 1 / Jazz BD 1		MONDO Kick	Elec BD	808 Bass Drum	Jazz BD 1	Concert BD 1
37	Side Stick				808 Rim Shot		
38	Snare Drum 1		Gated SD	Elec SD	808 Snare Drum	Brush Tap	Concert SD
39	Hand Clap					Brush Slap	Castanets
40	Snare Drum 2			Gated SD		Brush Swirl	Concert SD
41	Low Tom 2	Room Low Tom 2	Room Low Tom 2	Elec LowTom 2	808 Low Tom 2		Timpani F
42	Closed Hi-Hat [EXC1]				808 CHH [EXC1]		Timpani F#
43	Low Tom 1	Room Low Tom 1	Room Low Tom 1	Elec LowTom 1	808 Low Tom 1		Timpani G
44	Pedal Hi-Hat [EXC1]				808 CHH [EXC1]		Timpani G#
45	Mid Tom 2	Room Mid Tom 2	Room Mid Tom 2	Elec MidTom 2	808 Mid Tom 2		Timpani A
46	Open Hi-Hat [EXC1]				808 OHH [EXC1]		Timpani A#
47	Mid Tom 1	Room Mid Tom 1	Room Mid Tom 1	Elec MidTom 1	808 Mid Tom 1		Timpani B
48	High Tom 2	Room Hi Tom 2	Room Hi Tom 2	Elec Hi Tom 2	808 Hi Tom 2		Timpani c
49	Crash Cymbal 1				808 Cymbal		Timpani c#
50	High Tom 1	Room Hi Tom 1	Room Hi Tom 1	Elec Hi Tom 1	808 Hi Tom 1		Timpani d
51	Ride Cymbal 1						Timpani d#
52	Chinese Cymbal			Reverse Cymbal			Timpani e
53	Ride Bell						Timpani f
54	Tambourine						
55	Splash Cymbal						
56	Cowbell				808 Cowbell		
57	Crash Cymbal 2						Concert Cymbal2
58	Vibra-slap						
59	Ride Cymbal 2						Concert Cymbal1
60	High Bongo						
61	Low Bongo						
62	Mute High Conga				808 Hi Conga		
63	Open High Conga				808 Mid Conga		
64	Low Conga				808 Low Conga		
65	High Timbale						
66	Low Timbale						
67	High Agogo						
68	Low Agogo						
69	Cabasa						
70	Maracas				808 Maracas		
71	Short Hi Whistle [EXC2]						
72	Long Low Whistle [EXC2]						
73	Short Guiro [EXC3]						
74	Long Guiro [EXC3]						
75	Claves				808 Claves		
76	High Wood Block						
77	Low Wood Block						
78	Mute Cuica [EXC4]						
79	Open Cuica [EXC4]						
80	Mute Triangle [EXC5]						
81	Open Triangle [EXC5]						
82	Shaker						
83	Jingle Bell						
84	Belltree						
85	Castanets						
86	Mute Surdo [EXC6]						
87	Open Surdo [EXC6]						
88	----	----	----	----	----	----	Applause *

* Tones which are created with using two voices.
(All other tones are created with one voice.)

Blank Same as the percussion of "Standard Set"
 ----- No sound
 [EXC] Percussion sound of the same number will not be heard at the same time.

Note Number	7-17:SFX Set
39	High Q
40	Slap
41	Scratch Push (EXC7)
42	Scratch Pull (EXC7)
43	Sticks
44	Square Click
45	Metronome Click
46	Metronome Bell
47	Guitar sliding finger
48	Guitar cutting noise (down)
49	Guitar cutting noise (up)
50	String slap of double bass
51	Fl. Key Click
52	Laughing
53	Screaming
54	Punch
55	Heart Beat
56	Footsteps 1
57	Footsteps 2
58	Applause *
59	Door Creaking
60	Door
61	Scratch
62	Windchime *
63	Car-Engine
64	Car-Stop
65	Car-Pass
66	Car-Crash *
67	Siren
68	Train
69	Jetplane *
70	Helicopter
71	Starship *
72	Gun Shot
73	Machine Gun
74	Lasergun
75	Explosion *
76	Dog
77	Horse-Gallop
78	Birds *
79	Rain *
80	Thunder
81	Wind
82	Seashore
83	Stream *
84	Bubble *

* Tones which are created with using two voices.
 (All other tones are created with one voice.)

■ Music Style Chart

Style Group A Pop				Style Group D Swing				Style Group G Waltz						
	Intro	Ending	Std		Intro	Ending	Std		Intro	Ending	Std			
	(measures)	(measures)	Tempo		(measures)	(measures)	Tempo		(measures)	(measures)	Tempo			
1	16 Beat Shuffle	4	2	100	1	Big Band 1	5	5	160	1	Slow Waltz	4	5	75
2	Pop 1	5	6	120	2	Big Band 2	6	3	150	2	Waltz	2	5	180
3	Pop 2	2	4	120	3	Swing 1	4	3	132	3	Vienna Waltz	4	8	180
4	Pop 3	1	2	120	4	Swing 2	8	2	176	4	Pop Waltz	4	6	120
5	16 Beat Pop	4	1	120	5	Slow Swing 1	2	3	70	5	Folk Waltz	4	6	160
6	Shuffle	4	5	155	6	Slow Swing 2	1	6	108	6	Country Waltz	4	5	86
7	Ballad	2	4	60	7	Boogie	2	2	162	7	Jazz Waltz	4	3	160
8	16 Beat Ballad 1	4	3	78	8	Dixieland	4	4	162	8	Mazurka	4	4	155
9	16 Beat Ballad 2	4	3	95	9	Charleston	4	4	212					
10	Pop Ballad	1	1	80	10	Afro/Swing	2	4	200					
11	Shuffle Ballad	4	6	120	11	Ragtime	2	3	105					
					12	Swing Blues	4	3	70					

Style Group B Rock				Style Group E Latin				Style Group H World						
	Intro	Ending	Std		Intro	Ending	Std		Intro	Ending	Std			
	(measures)	(measures)	Tempo		(measures)	(measures)	Tempo		(measures)	(measures)	Tempo			
1	Rock 1	4	5	114	1	Bossa Nova 1	4	3	120	1	Gospel	4	4	152
2	Rock 2	4	3	120	2	Bossa Nova 2	4	6	120	2	Two Step	8	2	125
3	Rock 3	2	3	118	3	Samba 1	5	3	110	3	Country Ballad	4	6	80
4	Rock 4	4	5	102	4	Samba 2	4	2	110	4	Bluegrass	3	4	155
5	Rock 5	4	4	115	5	Rhumba	2	4	120	5	Train Beat	4	4	140
6	Country Rock 1	4	5	140	6	Beguine	1	6	104	6	African	1	1	100
7	Country Rock 2	6	5	120	7	Mambo	4	3	110	7	Arab	2	3	120
8	Pop Rock	8	5	130	8	Cha Cha	3	4	135	8	Keroncong	8	6	111
9	Twist	1	5	164	9	Salsa	2	3	120	9	Alternating Thumb Style	2	3	95
10	Rock'n'Roll 1	4	4	126	10	Calypso	4	4	155	10	Guitar Arpeggio	4	2	65
11	Rock'n'Roll 2	4	2	160	11	Reggae 1	1	3	132	11	Triplet Enka	5	7	80
12	Rock'n'Roll 3	2	5	190	12	Reggae 2	8	2	135	12	Enka	8	5	77
13	Rock'n'Shuffle	8	4	190	13	Lambada	4	2	120	13	16 Beat Enka	5	5	90
14	Slow Rock	2	3	64						14	Ondo	7	3	117
15	R&B	1	2	120										
16	Blues	2	4	98										

Style Group C Contemporary				Style Group F Traditional					
	Intro	Ending	Std		Intro	Ending	Std		
	(measures)	(measures)	Tempo		(measures)	(measures)	Tempo		
1	Rap	4	2	110	1	March 6/8	4	2	110
2	House	4	3	120	2	March 4/4	2	2	120
3	Techno	4	4	126	3	Polka	2	2	120
4	Dance 1	4	5	132	4	2 Beat	4	4	140
5	Dance 2	2	3	94	5	Foxtrot	4	2	184
6	Dance 3	1	3	96	6	Tango	2	2	120
7	Dance 4	4	2	112	7	Hawaiian	2	3	91
8	Dance 5	4	6	128	8	Piano Arpeggio	2	2	55
9	Dance 6	4	4	120	9	Classical	5	5	80
10	Funk 1	4	4	110	10	Broadway	2	4	140
11	Funk 2	4	2	96	11	Baroque 1	2	3	140
12	Jazz Funk	2	2	102	12	Baroque 2	2	3	140
					13	Minuet	6	5	86
					14	Bolero	2	5	68

The Original accompaniment pattern for "Piano Arpeggio" (F-8) does not include a rhythm.

■ Chord Chart

The keys indicated by dots show the notes that make up each chord. When Chord Intelligence is turn on (p.43), you can play the paticular chord just by pressing the key(s) marked with a star(s). When Chord Intelligence is off (p.43), play the keys indicated by the dots.

C	C#	D	E ^b	E	F
CM7	C#M7	DM7	E ^b M7	EM7	FM7
C7	C#7	D7	E ^b 7	E7	F7
Cm	C#m	Dm	E ^b m	Em	Fm
Cm7	C#m7	Dm7	E ^b m7	Em7	Fm7
CmM7	C#mM7	DmM7	E ^b mM7	EmM7	FmM7
Cdim	C#dim	Ddim	E ^b dim	Edim	Fdim
Cm7 (b5)	C#m7 (b5)	Dm7 (b5)	E ^b m7 (b5)	Em7 (b5)	Fm7 (b5)
Caug	C#aug	Daug	E ^b aug	Eaug	Faug
Csus4	C#sus4	Dsus4	E ^b sus4	Esus4	Fsus4
C7sus4	C#7sus4	D7sus4	E ^b 7sus4	E7sus4	F7sus4

F#	G	A \flat	A	B \flat	B
F#M7	GM7	A \flat M7	AM7	B \flat M7	BM7
F#7	G7	A \flat 7	A7	B \flat 7	B7
F#m	Gm	A \flat m	Am	B \flat m	Bm
F#m7	Gm7	A \flat m7	Am7	B \flat m7	Bm7
F#mM7	GmM7	A \flat mM7	AmM7	B \flat mM7	BmM7
F#dim	Gdim	A \flat dim	Adim	B \flat dim	Bdim
F#m7(\flat 5)	Gm7(\flat 5)	A \flat m7(\flat 5)	Am7(\flat 5)	B \flat m7(\flat 5)	Bm7(\flat 5)
F#aug	Gaug	A \flat aug	Aaug	B \flat aug	Baug
F#sus4	Gsus4	A \flat sus4	Asus4	B \flat sus4	Bsus4
F#7sus4	G7sus4	A \flat 7sus4	A7sus4	B \flat 7sus4	B7sus4

MIDI Implementation Chart

Function ...	Transmitted	Recognized	Remarks
Basic Channel Default Changed	2, 4, 5, 6, 10, 13, 16 x	1, 2, 3, 4, 5, 6, 10, 13, 16 1-16, OFF	1 = Upper, Note to Arr. 2 = Accompaniment Bass 3 = Note to Arranger *1 4 = Upper 5 = Accompaniment 1 6 = Accompaniment 2 10 = Accompaniment Drums 13 = Note to Arranger 16 = Manual Drums
Mode Default Messages Altered	Mode 3 *2 *****	Mode 3 Mode 3,4(M=1)	*4
Note Number : True Voice	0-127 *****	0-127 0-127	
Velocity Note ON Note OFF	o *1 x	o x	
After Touch Key's Ch's	*3 *3	o *1 o *1	
Pitch Bender	*3 *5	o *1	
Control Change	0, 32 o *5 1 *3 *5 5 *3 6, 38 *3 7 *3 *5 10 *3 *5 11 *3 *5 64 *1 *5 65 *3 66 *3 *5 67 *3 *5 84 *3 91 o *5 93 o *5 98, 99 *3 100, 101 *3	o *1 o (Reverb) *1 o (Chorus) *1 x *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
Prog Change : True #	o *5 *****	o *1 0 - 127	Prog.1-128
System Exclusive	o	o	
System Common : Song Pos : Song Sel : Tune	x x x	x x x	
System Real Time : Clock : Commands	o o	o o	FA, FC
Aux Messages : All Sounds OFF : Reset All Controllers : Local ON/OFF : All Notes OFF : Active Sensing : Reset	x o o x o x	o o x o (123-127) o x	
Notes	*1 o x is selectable. *2 When turn on the power, the OMNI OFF, POLY ON and LOCAL messages are sent to channel 1. *3 Only SOFT THRU. *4 Recognize as M = 1 even if M ≠ 1. *5 Transmitted if recorded into the recorder.		

Mode 1 : OMNI ON, POLY
Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO
Mode 4 : OMNI OFF, MONO

o : Yes
x : No

MIDI Implementation Chart

Function ...		Transmitted	Recognized	Remarks	
Basic Channel	Default Changed	x x	1-16 1-16, OFF		
Mode	Default Messages Altered	x x *****	Mode 3 Mode 3,4(M=1)	*2	
Note Number :	True Voice	x *****	0-127 0-127		
Velocity	Note ON Note OFF	x x	o x		
After Touch	Key's Ch's	x x	o o	*1 *1	
Pitch Bender		x	o	*1	
Control Change	0, 32	x	o	*1	Bank select
	1	x	o	*1	Modulation
	5	x	o	*1	Portamento time
	6,38	x	o	*1	Data entry
	7	x	o	*1	Volume
	10	x	o	*1	Panpot
	11	x	o	*1	Expression
	64	x	o	*1	Hold 1
	65	x	o	*1	Portamento
	66	x	o	*1	Sostenuto
	67	x	o	*1	Soft
	84	x	o	*1	Portamento Control
	91	x	o (Reverb)	*1	Effect 1 depth
93	x	o (Chorus)	*1	Effect 3 depth	
98, 99	x	x	*1	NRPN LSB,MSB	
100, 101	x	o	*1	RPN LSB,MSB	
Prog Change :	True #	x *****	o 0 - 127	*1 Prog.1-128	
System Exclusive		o	o		
System Common	: Song Pos : Song Sel : Tune	x x x	x x x		
System Real Time	: Clock : Commands	x x	x x		
Aux Messages	: All Sounds OFF : Reset All Controllers : Local ON/OFF : All Notes OFF : Active Sensing : Reset	x x x x o x	o o x o (123-127) o x		
Notes		*1 o x is selectable *2 Recognize as M = 1 even if M ≠ 1.			

Mode 1 : OMNI ON, POLY
Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO
Mode 4 : OMNI OFF, MONO

o : Yes
x : No

■ Main Specifications

RA-30: Realtime Arranger
(conforms to General MIDI System and GS Format)

● Parts

Upper , Accompaniment 1/2
A.Drums , M. Drums, A.Bass

● Maximum Polyphony

24 voices

● Tones

Panel Selection : 8 groups, 128 tones
Selection by MIDI : 226

● Music Styles

100 Styles

● Manual Drum Sets

9 Sets (including SFX set)

IEffects

Reverb, Chorus

● Composer

Tracks : 1
Songs : 1
Note Storage : approx. 5,000 notes
Tempo : quarter note = 20 to 250
Recording Method : Realtime

● Display

7 segments, 3 Characters (LED)

● Connectors

Output Jacks (L, R)
Headphone Jack (stereo)
MIDI Connectors (in, out)
RRC In Connector
Foot Control Jack
AC Adaptor Jack

● Power Supply

AC Adaptor (DC 9 V)

● Current Draw

600 mA

● Dimensions

305 (W) x 245 (D) x 65 (H) mm
12-1/16 (W) x 9-11/16 (D) x 2-9/16 (H) inches

● Weight

1.5 kg / 3 lbs 5 oz (excluding AC Adaptor)

● Accessories

Owner's Manual
Music Style Sticker
AC Adaptor : ACI-120J, ACI-220J, ACB-240E,
ACB-240A
MIDI Cable
Audio Cable

● Options

Acoustic Keyboard Pickup KP-24
Pedal Switch DP-2, FS-5U (BOSS)

* In the interest of product development, the specifications and/or appearance of this unit are subject to change without prior notice.

Information

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

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Richmond B. C., V6V 2M4
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TEL: (604) 270 6626

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Atlantic Close, Swansea
Enterprise Park, Swansea,
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11 Brunswick Place Dublin 2
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■ Demo Songs

Song No.	Song Name	Composer / Copyright holder	
1	SKY HAE-WAY	Music by Ichi Itoh	Copyright © 1995, Roland
2	Joe's Revival	Music by Marvin Sanders	Copyright © 1993, Marvster Music
3	Yellow	Music by Ichi Itoh	Copyright © 1993, Roland

Profiles of the composer

Ichi Itoh

His life has thus far been a story of remarkable achievements, beginning with winning an electric organ contest even while still in junior high school. While in high school, he acquired in-depth knowledge on computers and their use in business. At the time he entered university, he was also an active participant in the business of a Japanese record company. Afterwards, a period in which he served as an advisor on keyboard instruments for Roland Corporation lead to his being taken on-board as a full-time employee. So far, he has performed in 137 cities overseas, and 200 within Japan. He resigned from Roland in 1987 in order to establish his own school of music. Currently, while managing his company's "Studio Ichi," he also serves as an advisor to Roland concerning development of new electronic musical instruments, and assists with their promotion throughout the realm of music.

Marvin Sanders

Marvin Sanders is a Los Angeles-based composer whose music and sound design can be heard on projects for Toyota, FOX, Max Factor, Disney, Intel, Brian Wilson, and Michael Jackson. He has worked extensively with Roland, both as former US Keyboard Product Manager, and as an independent consultant involved in product development and international demonstrations. Contributions to other Roland instruments include ROM-plays in the RD-500, JD-990, and JV-880.

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* The performance data for the Demo songs is not output from the MIDI Out connector.

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