

Roland®

S-MPU-IIAT

INTELLIGENT MIDI PROCESSING UNIT

Super **MPU II**

for
Microsoft®
Windows® 3.1/Windows® 95

OWNER'S MANUAL

We'd like to take a moment to thank you for purchasing the Roland Super MPU II (Intelligent MIDI Processing Unit).

This document explains how to set up the Super MPU II system. To avoid problems and enjoy optimal performance, please carefully follow the setup instructions described in this document.

Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" (p. 2, p. 3) and "IMPORTANT NOTES" (p. 4). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, this manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

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This product complies with the requirements of European Directive 89/336/EEC.

For Europe

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 UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠ WARNING and ⚠ CAUTION Notices








⚠ WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠ CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols



⚠	The ⚠ symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
⊘	The ⊘ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
Ⓢ	The ● symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

----- **ALWAYS OBSERVE THE FOLLOWING** -----

⚠ WARNING

- Before using this unit, make sure to read the instructions below, and the Owner's Manual. 
- Do not open or perform any internal modifications on the unit. 
- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your dealer, or qualified Roland service personnel. 
- Never use or store the unit in places that are: 
 - Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
 - Damp (e.g., baths, washrooms, on wet floors); or are
 - Humid; or are
 - Dusty; or are
 - Subject to high levels of vibration.
- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit. 
- Protect the unit from strong impact. (Do not drop it!) 
- Before installing the S-MPU-IIAT, you must first always turn off the computer and unplug its power cord. 

⚠ CAUTION

- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children. 
- Do not allow any objects (e.g., flammable material, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the MIDI Connector Box. 

IMPORTANT NOTES

In addition to the items listed under "USING THE UNIT SAFELY" on page 2 and 3, please read and observe the following:

Placement

- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.

Maintenance

- Never use benzene, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

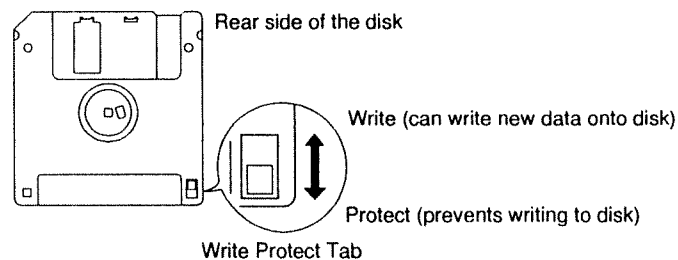
Additional Precautions

- Unfortunately, it may be impossible to restore the contents of data that was stored on a floppy disk once it has been lost. Roland Corporation assumes no liability concerning such loss of data.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).

Handling Floppy Disks

- Floppy disks contain a plastic disk with a thin coating of magnetic storage medium. Microscopic precision is required to enable storage of large amounts of data on such a small surface area. To preserve their integrity, please observe the following when handling floppy disks:
 - Never touch the magnetic medium inside the disk.
 - Do not use or store floppy disks in dirty or dusty areas.
 - Do not subject floppy disks to temperature extremes (e.g., direct sunlight in an enclosed vehicle). Recommended temperature range: 10 to 50° C (50 to 122° F).
 - Do not expose floppy disks to strong magnetic fields, such as those generated by loudspeakers.


- Floppy disks have a "write protect" tab which can protect the disk from accidental erasure. It is recommended that the tab be kept in the PROTECT position, and moved to the WRITE position only when you wish to write new data onto the disk.



- The identification label should be firmly affixed to the disk. Should the label come loose while the disk is in the drive, it may be difficult to remove the disk.
- Put the disk back into its case for storage.

Contents

1 Introduction	6
1. Contents of This Package	6
2. Features of the Super MPU II	7
3. Names of Things and What They Do	7
4. Features of the Super MPU II Application	8
2 Setup	10
1. Required System Configuration	10
2. Connections	10
3 Installation	16
1. Before Installation	16
2. Installing the Super MPU II Driver (Windows 95)	16
3. Super MPU II Driver Settings	17
4. Installing the Super MPU II Applications	18
4 If You Are Using Windows® 3.1	21
1. Installing the "SMPUENA" Enabler	21
2. Installing the Super MPU II Driver (Windows 3.1)	22
3. MIDI Mapper Settings	24
5 Use with MS-DOS® Applications	27
6 Modifying the Resource Settings	28
1. If You Are Using Windows 95	28
2. If You Are Using a Configuration Utility (Windows 3.1)	28
3. If You Are Using the "SMPUENA" Enabler (MS-DOS/Windows 3.1)	29
7 Appendices	30
1. Troubleshooting	30
2. Information on Problems with Specific Models of Computer	33
3. If You Wish to Use Two Super MPU Units	34
Specifications	34

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* Windows® 95 is known officially as: "Microsoft® Windows® 95 operating system."

* IBM is a registered trademark of International Business Machines Corporation.

* IBM PC is a registered trademark of International Business Machines Corporation.

* MWAVE is a trademark of International Business Machines Corporation.

* Sound Blaster is a trademark of Creative Labs, Inc.

* Cakewalk Professional is a trademark of Twelve Tone Systems, Inc.

* All product names mentioned in this document are trademarks or registered trademarks of their respective owners.

1 Introduction

1. Contents of This Package

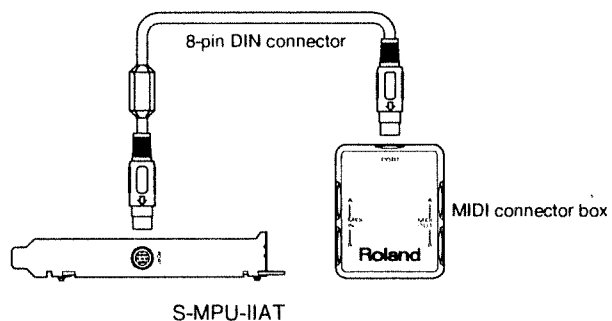
The Super MPU II package contains the following items.

If any items are missing, please contact the dealer where you purchased the package.

• MIDI Interface

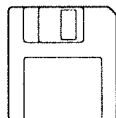
Intelligent MIDI Processing Unit S-MPU-IIAT

- MIDI connector box
- 8-pin DIN connector



• Floppy Disk

Super MPU II Application System Disk



Super MPU II Application
System Disk

• Manual

Super MPU II Owner's Manual (this manual)



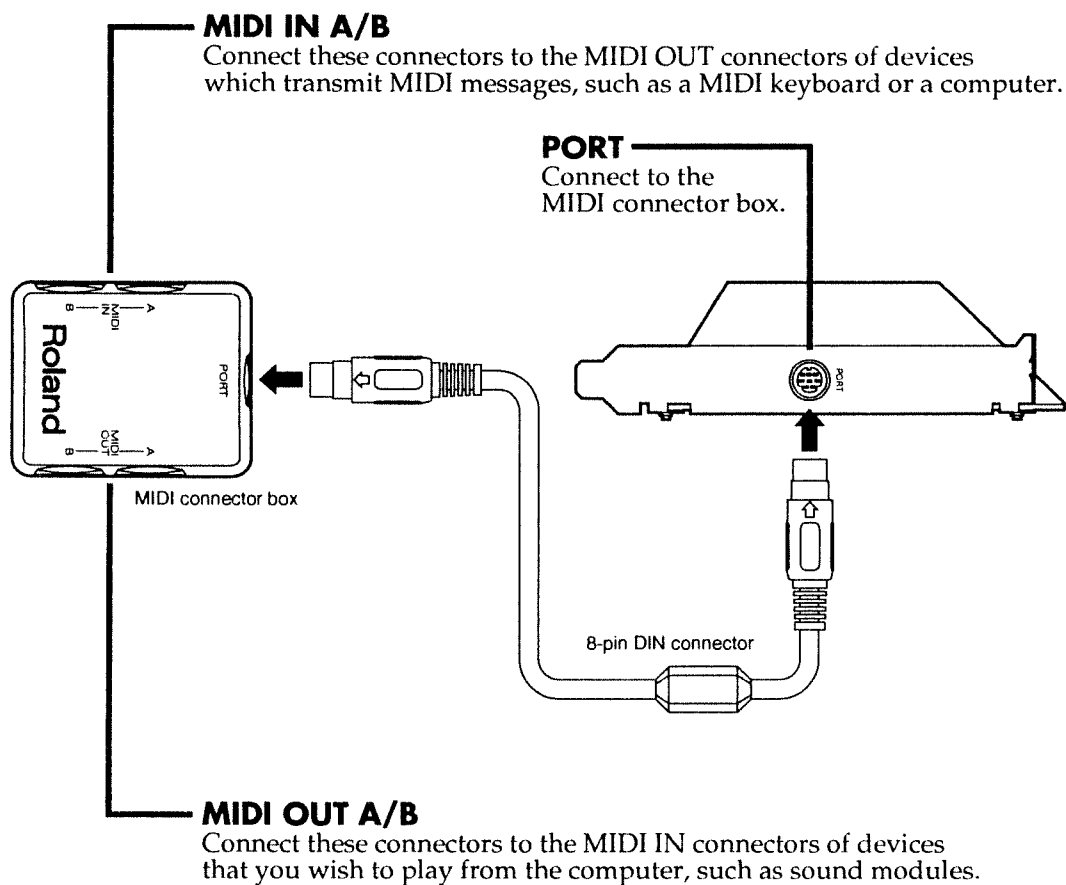
Super MPU II
Owner's Manual

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2. Features of the Super MPU II

- Two sets of MIDI IN/OUTs can be controlled independently. This means you can control up to 32 MIDI channels simultaneously using software such as "Cakewalk Professional." It is also possible to synchronize playback with the VS-880 using MTC (MIDI time code).
- Supports Plug & Play, so setup is extremely easy.
- Depending on the application, high resolution of up to 960 steps per quarter note can be used, allowing detailed nuances of the performance to be faithfully reproduced.
- The MIDI accelerator function provides high speed processing—lightening the load of the computer, and meeting the demands of professional use. Even while running applications such as multimedia animation or computer graphics, playback/recording will be stable without delays or dropped notes.
- Since MTC (MIDI Time Code) synchronization is supported, you can synchronize to the Roland VS-880 digital workstation, or to "Cakewalk Professional."

3. Names of Things and What They Do



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4. Features of the Super MPU II Application

This package includes the following seven applications and demo songs.

- **SMPU PLAY for Windows**

This application reads Standard MIDI Files and plays them. It also supports 16-channel realtime input. It is also possible to synchronize playback with the VS-880 using MTC (MIDI time code).

- **VU Meters**

This application indicates the playback status of 16 parts as movements of a VU meter.

- **MIDI Keyboard**

This application lets you use a mouse to play an on-screen keyboard.

- **MIDI Program Changer**

This application transmits sound selection messages (Bank Select, Program Change) to a MIDI sound generator.

- **SMPUMIXER for Windows**

This application indicates the note-on velocity, pan, and other information for each part in the form of a mixer display. You can also control the volume, pan, etc. The volume of the VS-880 or the volume of each track of an MME-compatible application such as "Cakewalk Professional" can also be controlled.

- **S-MPU MIDI PATCHER**

This application allows specific MIDI messages to be blocked from input, or the data values of specific MIDI messages to be modified during playback, without having to modify the sequence data. For example, you could exchange only the note number data of the MIDI messages, so that data created for a GS sound generator can be played back correctly on a different sound generator; or easily transpose the key by causing note pitches to be output higher (or lower) than the actual data.

- **Hyper Tone Viewer**

This application animates images of musical instruments in time with playback or MIDI messages from an external device.

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Demo Songs (Standard MIDI Files)

The following GS format compatible demo songs (Standard MIDI File) are included.

File Name	Song Title	Composer	Copyright
BLUE_P.MID	BLUE PLANET	Chong Lim	© 1994 Roland Corporation
COUNT.MID	Count On The Blues	John Maul	© 1994 Roland Corporation
OZ_CONNE.MID	Oz Connection	Adrian Scott	© 1992 Roland Corporation

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• Profiles of Composers

Chong Lim

Chong Lim is a busy keyboard player, arranger, producer and composer working mainly in the cities of Melbourne and Sydney, Australia. Chong has collaborated with many top international artists including John Farnham, Tina Arena, Jermaine Jackson, Little River Band, Judith Durham, Rick Price, etc. He is also the Musical Director of the top rating live television show "Don't Forget Your Toothbrush." He is actively involved in the composition of soundtrack music for film and television and is a member of Roland's Australian Research and Development Team.

John Maul

John Maul is a musician, composer and arranger having graduated from the Royal Academy of Music in London. John's work encompasses studio recordings and live performances, including work with top cabaret artists in the U.K. His writing credits include commercial music for radio and television, as well as scoring jazz and classical works. Having been a product specialist for Roland U.K., John is now actively involved in music software composing/programming for both Roland Japan and various music publishers. Quite recently his "Musical Picture Book", a volume of original piano music encompassing all standards of musical ability, which included the piano and orchestral accompaniment data in SMF format, was published and printed.

Adrian Scott

Adrian Scott formerly handled the vocals and keyboards for the popular Australian group, "Air Supply." Since following the solo path, he won the Silver Prize at the "World Song Festival Tokyo '84." Currently, he is involved as a producer of commercial music and music for films. In addition, as a session player, he has performed along with a number of Australia's top musicians, including John Farnham and Kylie Minogue. He lives in Melbourne, Australia.

2

Setup

1. Required System Configuration

The minimum system requirements for Super MPU II and the Super MPU II applications are as follows. Please make sure that each requirement is met.

Computer:

A computer capable of running Windows 95 or Windows 3.1, with an ISA bus slot.

* If you are using Windows 3.1, we recommend that you use a computer that supports Plug & Play. If your computer does not support Plug & Play, you must install the included "SMPUENA" enabler. In this case, it will not be possible to simultaneously use other Plug & Play compatible peripherals.

Operating System:

Microsoft Windows 95 / Windows 3.1, MS-DOS version 5.0 or later

* If you are using MS-DOS, you will need to install the included "SMPUENA" enabler.

Memory (RAM):

8 MB or more (16 MB or more is recommended when using Windows 95)

Hard Disk:

approximately 2 MB

Display Resolution/Colors:

640 x 480 pixels / 16 colors or more

2. Connections

Installing the S-MPU-IIAT

Insert the S-MPU-IIAT into an expansion slot of your computer.

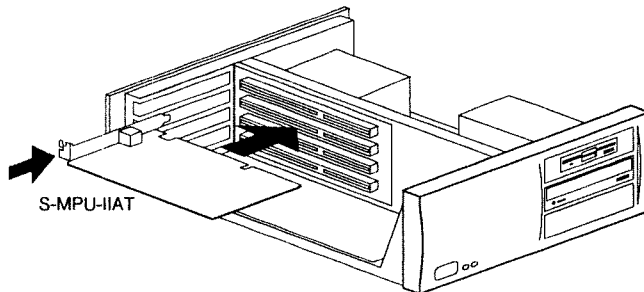
1. Before installation, turn off the power on all equipment.
Turn off the power on your computer, disconnect the power cable from the computer, and then turn off the power of all connected peripherals.

2. Remove the cover from your computer.

* Please carefully read the instructions and/or precautionary advice in the manual(s) that came with your computer before attempting to remove its cover.
Also, be sure to be careful when handling the cover and working around the computer's chassis—you may encounter sharp edges that could cause injury.

-
3. Remove the expansion slot cover from the rear panel.
Remove the screws which hold in place the cover of the slot into which the S-MPU-IIAT will be installed, and remove the cover. Any slot may be used for installation.

4. Insert the S-MPU-IIAT into the expansion slot.
Push it firmly in all the way.



5. Fasten the S-MPU-IIAT with the screws.
6. Reattach the cover of your computer.

* To avoid interference with the reception of a nearby radio, television, or other wireless device, be sure to fasten the screws.

- To avoid the risk of damage to internal components that can be caused by static electricity, please carefully observe the following whenever you handle the board.
 - Before you touch the board, always first grasp a metal object (such as a water pipe), so you are sure that any static electricity you might have been carrying has been discharged.
 - When handling the board, grasp it only by the panel or the board's edges. Avoid touching any of the electronic components or connectors.
 - Before you connect any cables, make sure they do not carry a static electricity charge. Such charges can be transmitted, for example, if the other end of the cable has been in contact with a carpet (or other object) where there is a static electricity buildup.
 - Save the bag in which the board was originally shipped, and put the board back into it whenever you need to store or transport it.

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Example Connections

Here we will explain an example of connections with a sound module or other MIDI device.

* This package does not contain a MIDI sound module, MIDI cables or audio cable. You can either use those which you already have, or purchase them separately.

• Connections with an SC-88Pro

1. Turn off the power of the computer and peripheral devices.
2. Use a 8-pin DIN connector to connect the PORT connector of the S-MPU-IIAT to the PORT connector of the MIDI connector box.
 - * Connect the side with the core to the main board of the S-MPU-IIAT.
3. Use a MIDI cable to connect the MIDI OUT A connector of the MIDI connector box to the MIDI IN A connector of the SC-88Pro.
4. Use a MIDI cable to connect the MIDI OUT B connector of the MIDI connector box to the MIDI IN B connector of the SC-88Pro.
5. Use audio cables to connect the OUTPUT L and R jacks of the SC-88Pro to the input jacks (INPUT, LINE IN, AUX IN, or TAPE IN) of your audio playback system.
 - * Be sure that the SC-88Pro's OUTPUT L and R jacks are connected respectively to the L and R jacks of your audio playback system. If L and R are reversed, the stereo image that you hear will be switched around.
 - * Never connect these outputs to the MIC jacks or PHONO jacks of your audio playback system.
6. Set the computer switch located on the rear panel of the SC-88Pro to the "MIDI" position.
7. Connect the power cable of the SC-88Pro to an AC outlet.

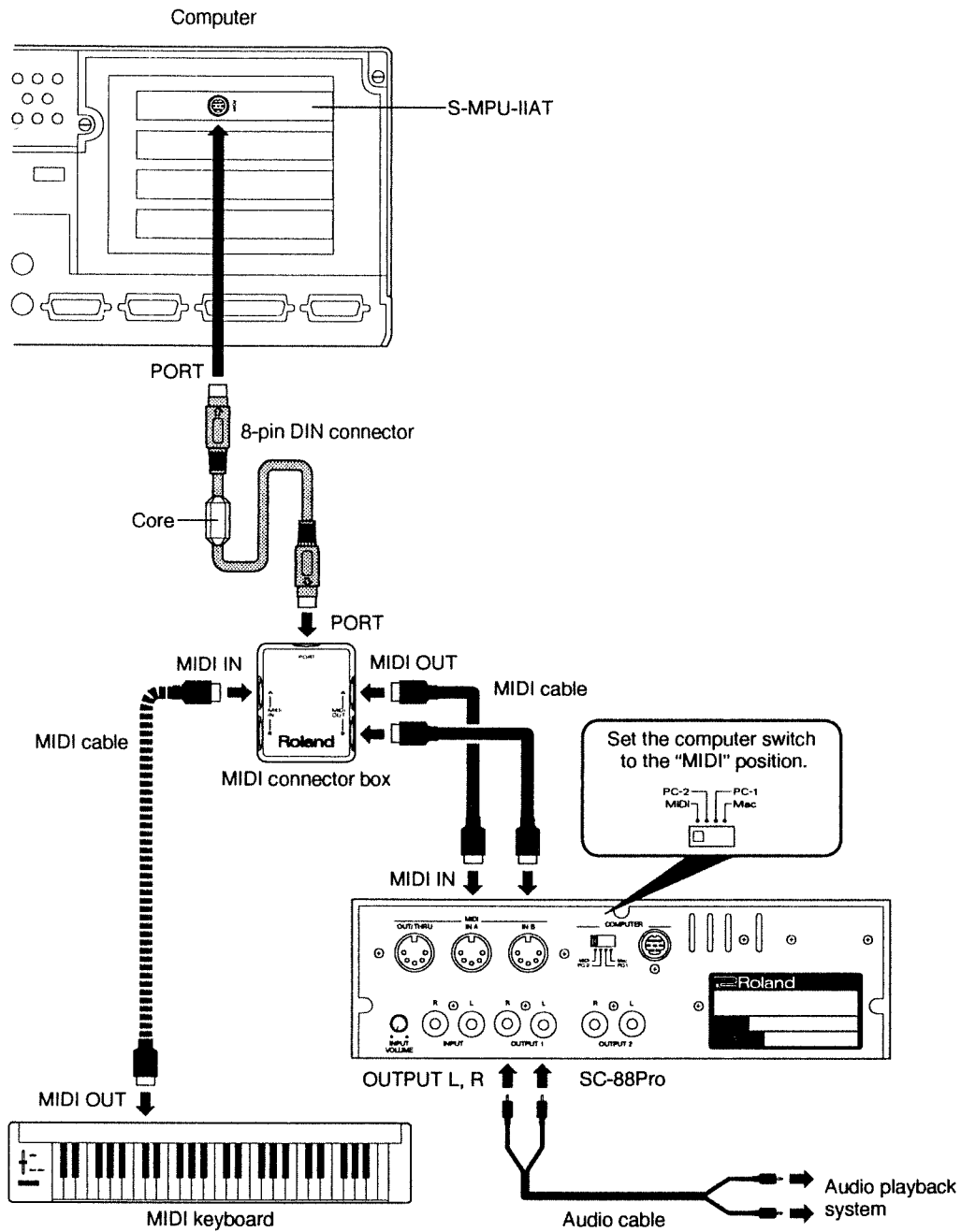
When you wish to use the system, turn on the power of the computer, the SC-88Pro, and the audio playback system.

* Before connecting or disconnecting the MIDI connector box, be sure to turn off the power of the computer.

* Before changing the position of the SC-88Pro's computer switch, be sure to turn off the power.

Connecting a MIDI keyboard

If you wish to connect a MIDI keyboard, use a MIDI cable to connect the MIDI IN A connector of the MIDI connector box to the MIDI OUT connector of your MIDI keyboard.



* Before connecting other devices, be sure to turn the volume down and have the power turned off, to avoid malfunction and damage to your speakers or other equipment.



• **Example of connections with the VS-880**

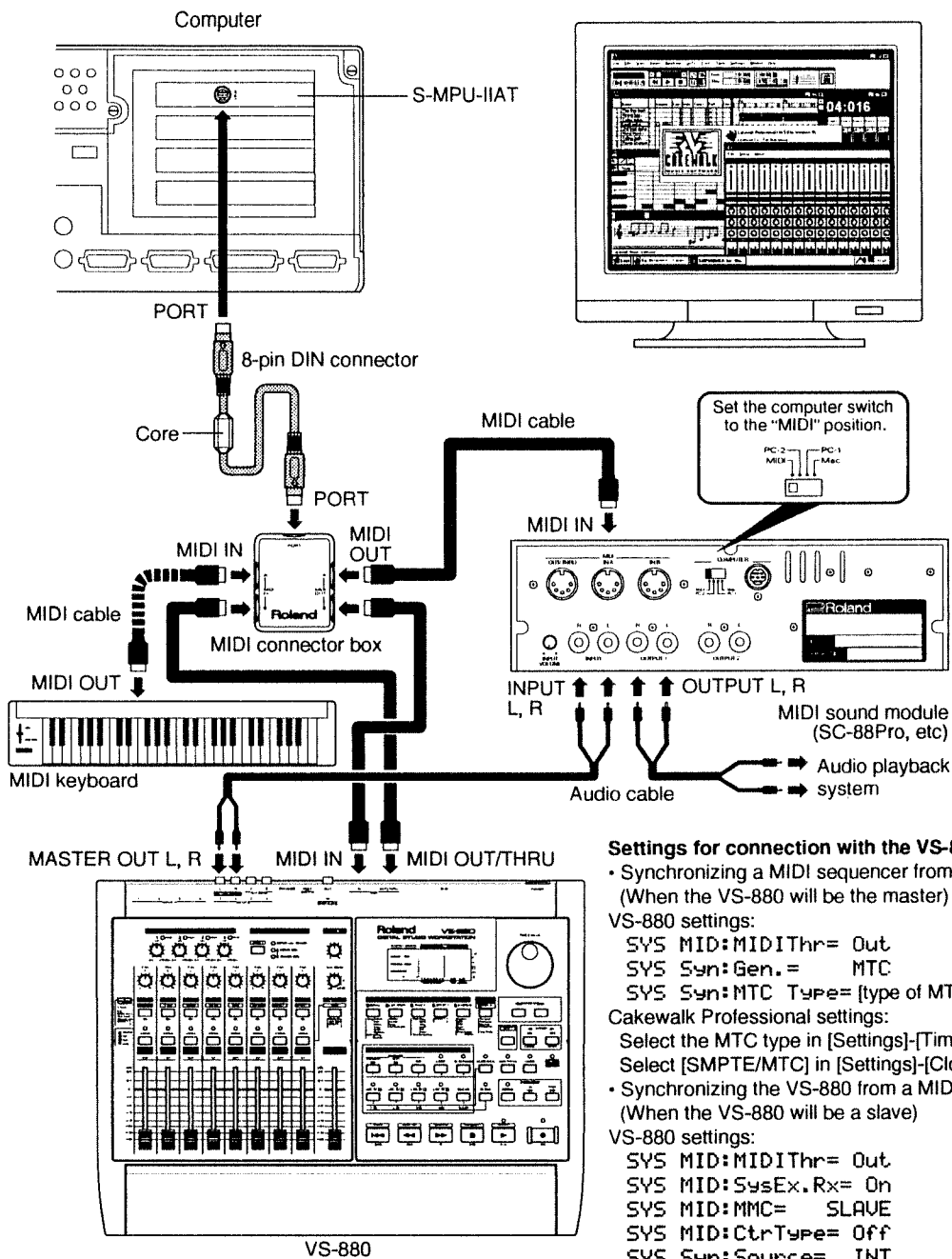
1. Turn off the power on your computer and peripheral devices.
2. Use a 8-pin DIN connector to connect the PORT connector of the S-MPU-IIAT to the PORT connector of the MIDI connector box.
 - * Connect the side with the core to the main board of the S-MPU-IIAT.
3. Use a MIDI cable to connect the MIDI IN B connector of the MIDI connector box to the MIDI OUT connector of the VS-880.
4. Use a MIDI cable to connect the MIDI OUT B connector of the MIDI connector box to the MIDI IN connector of the VS-880.
5. Use a MIDI cable to connect the MIDI OUT A connector of the MIDI connector box to the MIDI IN connector of a MIDI sound module (such as the SC-88Pro).
6. Use audio cables to connect the MASTER OUT L and R jacks of the VS-880 to the input jacks of your MIDI sound module.
 - * Be sure that the VS-880's MASTER OUT L and R jacks are connected respectively to the L and R jacks of your MIDI sound module. If L and R are reversed, the stereo image that you hear will be switched around.
7. Use audio cables to connect the OUTPUT L and R jacks of your MIDI sound module to the input jacks (INPUT, LINE IN, AUX IN, or TAPE IN) of your audio playback system.
 - * Be sure that the MIDI sound module OUTPUT L and R jacks are connected respectively to the L and R jacks of your audio playback system. If L and R are reversed, the stereo image that you hear will be switched around.
 - * Never connect these outputs to the MIC jacks or PHONO jacks of your audio playback system.
 - * Be aware that if MIDI THRU is turned on for both the VS-880 and the application which is using the Super MPU II, a MIDI loop will be created, which may cause your equipment to malfunction.
8. Set the computer switch located on the rear panel of your MIDI sound module to the "MIDI" position.
9. Connect the power cables of each device to an AC outlet.

When you wish to use the system, turn on the power of the computer and of the connected devices.

- * Before connecting or disconnecting the MIDI connector box, be sure to turn off the power of the computer.
- * For details on the operation of the VS-880 and your other MIDI equipment, refer to their respective owner's manuals.

Connecting a MIDI keyboard

If you wish to connect a MIDI keyboard, use a MIDI cable to connect the MIDI IN A connector of the MIDI connector box to the MIDI OUT connector of your MIDI keyboard.



Settings for connection with the VS-880

- Synchronizing a MIDI sequencer from the VS-880 (When the VS-880 will be the master)

VS-880 settings:

SYS MID: MIDIThr= Out
 SYS Syn: Gen.= MTC
 SYS Syn: MTC Type= [type of MTC]

Cakewalk Professional settings:

Select the MTC type in [Settings]-[Time Format].
 Select [SMPTE/MTC] in [Settings]-[Clock].

- Synchronizing the VS-880 from a MIDI sequencer (When the VS-880 will be a slave)

VS-880 settings:

SYS MID: MIDIThr= Out
 SYS MID: SysEx.Rx= On
 SYS MID: MMC= SLAVE
 SYS MID: CtrType= Off
 SYS Syn: Source= INT
 SYS Syn: Gen.= MTC
 SYS Syn: MTC Type= [type of MTC]

Cakewalk Professional settings:

Select the MTC type in [Settings]-[Time Format].
 Select [SMPTE/MTC] in [Settings]-[Clock].
 Check [Transmit MMC] in [MIDI Output].

* Before connecting other devices, be sure to turn the volume down and have the power turned off, to avoid malfunction and damage to your speakers or other equipment.

3

Installation

1. Before Installation

Before you use the applications, you must first install the Super MPU II driver. Then you may install the Super MPU II applications.

- * The Super MPU II driver is in the Super MPU II Application System Disk.
- * It is not possible to start up from the Super MPU II Application System Disk. You must install it into your hard disk before it can be used.

• Environment for installation

The explanations given in this section assume that you have the following environment.

Hard disk drive: drive C

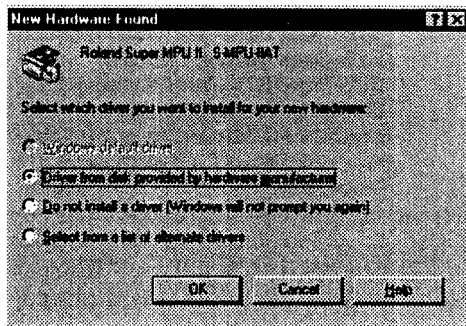
Floppy disk drive: drive A

- * We will assume that Windows 95 is installed in your hard disk. If you are using Windows 3.1, refer to "If You Are Using Windows 3.1" (p. 21).

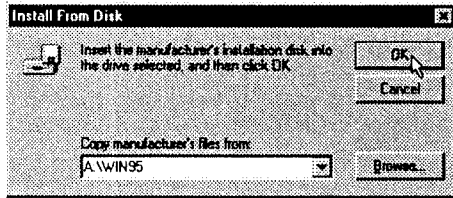
2. Installing the Super MPU II Driver (Windows 95)

Here we will explain the procedure for installing the Super MPU II driver on Windows 95.

1. Start up Windows 95.
After a while, the "Windows has found new hardware..." message will appear, and a driver select dialog box will appear.
 - * If the driver select dialog box does not appear, refer to "Case 6" in "Troubleshooting" (p. 32).
2. Insert the Super MPU II Application System Disk into the floppy disk drive.
3. Choose [Driver from disk provided by hardware manufacturer], and click the [OK].



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4. In the [Copy manufacturer's files from] text box, input **A:\WIN95**. Alternatively, you can click [Browse], select the "WIN95" directory of drive A, and click [OK].



5. In the [Select Device] dialog box, choose [Super MPU II for Windows95] and click [OK].

The driver will be installed.

* If the [Select Device] dialog box does not appear, you specified the wrong floppy disk drive in step 4. Make sure of the drive name on the computer that you are using.

6. Open the [Control Panel], and double-click [System].
7. In the [Device Manager] page [Sound, video and game controllers], make sure that the [Super MPU II for Windows95] icon does not have a "!" mark.

* If the icon appears with a "!", a conflict might exist between the resources (I/O address and interrupt level) used by the Super MPU II and those of other peripherals. Refer to the section "If You Are Using Windows 95" in "Modifying the Resource Settings" (p. 28), and redo the settings so there is no conflict.

This completes installation of the Super MPU II driver into Windows 95.

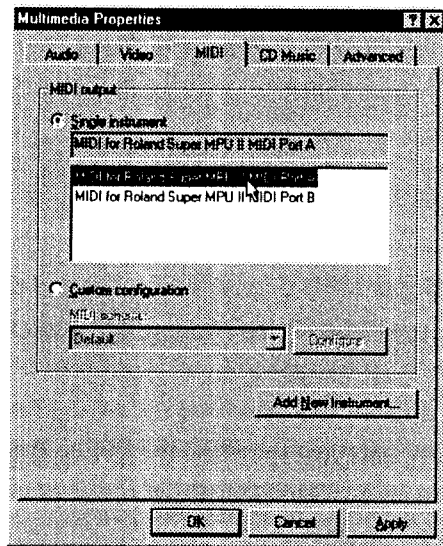
3. Super MPU II Driver Settings

Now you will make driver settings for the Super MPU II so that it can be used by MME-compatible applications such as the "Media Player" included with Windows.

1. In the [Control Panel], double-click [Multimedia].
The [Multimedia Properties] dialog box will appear.



2. Click the [MIDI] tab located in the upper part of the dialog box.
3. With [Single instrument] selected in [MIDI output], click either [MIDI for Roland Super MPU II MIDI Port A] or [MIDI for Roland Super MPU II MIDI Port B], depending on the port that is connected.



4. Click [OK].

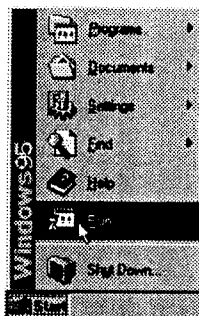
This completes driver settings.

4. Installing the Super MPU II Applications

Here we will explain the procedure for installing the Super MPU II applications into Windows 95.

If you are using Windows 3.1, refer to the notes (*** For Windows 3.1:**) within the explanation, but be aware that the screen displays will be different.

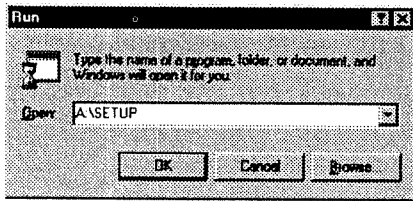
1. Start up Windows 95.
2. Insert the Super MPU II Application System Disk into the floppy disk drive.
3. Click the [Start] button, and click [Run].



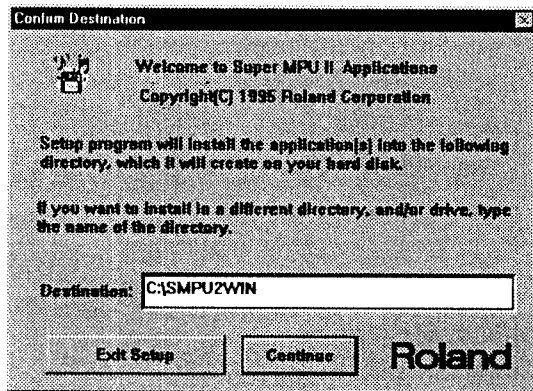
The [Run] dialog box will appear.

*** For Windows 3.1:** From the [File] menu of the [Program Manager], select [Run].

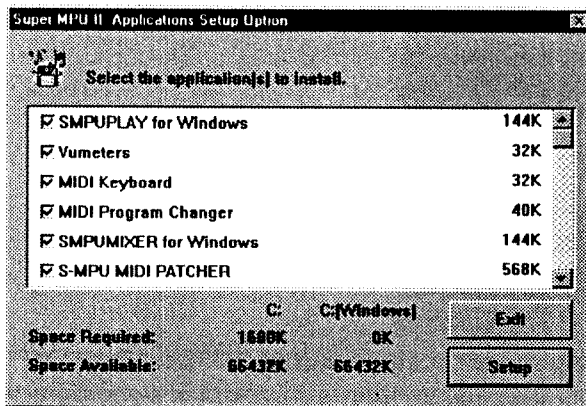
-
- In the [Open] text box, input `A:\SETUP`. Alternatively, click [Browse], select the "Setup" file from drive A, and click [Open].



- Click [OK].
The installation program will start up.
- The installation destination drive and directory will be displayed. If you wish to accept these defaults, click [Continue]. If you wish to change the drive or directory, input the desired settings.



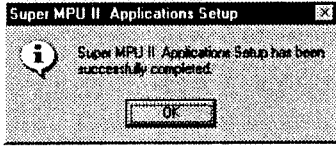
- The following display will appear. Click [Setup].



* If there are applications which you do not wish to install, un-check them.

Installation will begin.

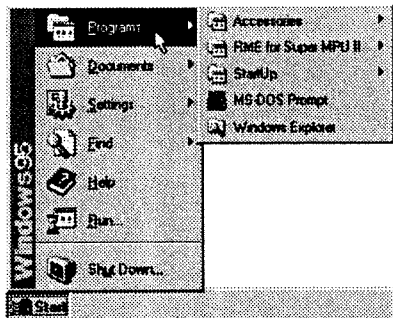
-
- When installation is complete, the following display will appear. Click [OK].



The "Readme" file will be displayed.

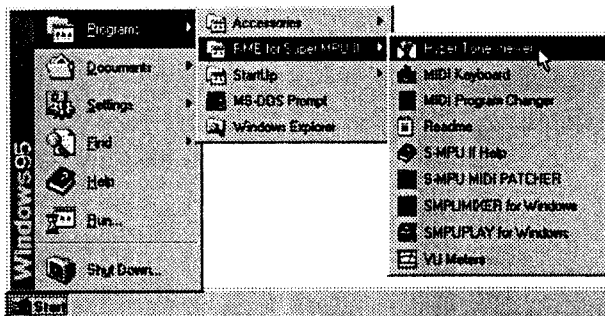
* The "Readme" file explains how to use the Super MPU II applications, so read the explanations as necessary.

- To close the "Readme" file, choose [Exit] from the [File] menu. When installation ends, a group named "RME for Super MPU II" will be created in [Start]-[Programs]



This completes installation of the Super MPU II applications.

To start up the applications, move the mouse pointer on [RME for Super MPU II], and then click the application name which you wish to run.



* **For Windows 3.1:** When installation ends, a group named "RME for Super MPU II" will be created in [Program Manager], and the applications will be registered. By double-clicking these icons, you can start up the corresponding application.

* For details on using each application, refer to the S-MPU II help files registered in the "RME for Super MPU II" group.

4

If You Are Using Windows® 3.1

If you are using Windows 3.1, you must first use the included "SMPUENA" enabler, or a configuration utility (included with your computer or optional) to assign resources. Then you will install the Windows 3.1 driver. Finally you will make MIDI Mapper settings and install the Super MPU II applications.

If your computer is Plug & Play compatible and has a configuration utility already installed, turn on the Plug & Play functionality of the configuration utility, and proceed to "Installing the Super MPU II Drivers (Windows 3.1)" on page 22. For details on using your configuration utility, refer to the owner's manual for the configuration utility.

For computers other than the above, you will need to install the "SMPUENA" enabler. However in this case, it will not be possible to use other Plug & Play compatible devices at the same time.

* If you are using Windows 3.1, it is not possible to simultaneously use two Super MPU II units, or to simultaneously use a Super MPU II and a Super MPU.

1. Installing the "SMPUENA" Enabler

So that Super MPU II can be used on Windows 3.1 (MS-DOS), we will now install SMPUENA and make I/O address and interrupt level assignments for Super MPU II.

1. If Windows 3.1 is running, exit it to return to DOS.
2. Insert the Super MPU II Application System Disk into the floppy disk drive.
3. At the DOS prompt, input `A:\WIN31\SMPUENA I`, and press the enter key. SMPUENA installation will begin.
 - * If SMPUENA does not start up, the wrong floppy disk drive was specified in step 3. Check the drive name for the computer that you are using.
 - * If the message: "Since configuration manager is installed, it's not necessary to set up this utility" appears, the configuration manager will perform the resource assignments. Halt installation of SMPUENA, and proceed to "Installing the Super MPU II Driver (Windows 3.1)" on page 22.
4. The "Select drive for installation" message will appear. Select the drive into which SMPUENA will be installed.
5. The "Input path for installation" message will appear. Select the directory into which SMPUENA will be installed.



6. The "Select startup drive" message will appear. Select the drive from which MS-DOS starts up.
 - * SMPUENA settings will be added to the "AUTOEXEC.BAT" file located on this startup drive.
7. The "Select I/O port to use" message will appear. Select the I/O port that Super MPU II will use.
 - * If the "Setting may conflict with another device" message appears, the I/O port you selected conflicts with another device. Select a different I/O port.
8. The "Select interrupt number to use" message will appear. Select the interrupt number which Super MPU II will use.
 - * If the "Setting may conflict with another device" message appears, the interrupt number you selected conflicts with another device. Select a different interrupt number.
9. After a message confirming your settings appears, the "Setup completed" message will appear. Press the enter key.

The enabler has now been installed.

2. Installing the Super MPU II Driver (Windows 3.1)

Here we will explain the procedure for installing the Super MPU II driver in Windows 3.1.

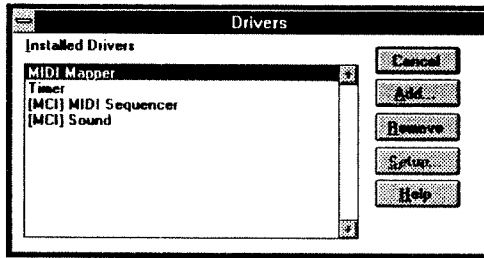
1. Start up Windows 3.1.
2. In the [Main] group of [Program Manager], double-click [Control Panel].



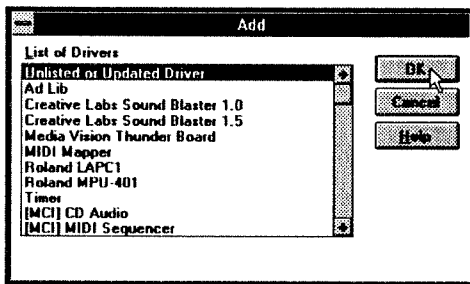
3. In the [Control Panel], double-click [Drivers].



A [Drivers] dialog box will appear, and the currently installed drivers will be displayed. The Super MPU II driver will be added here.

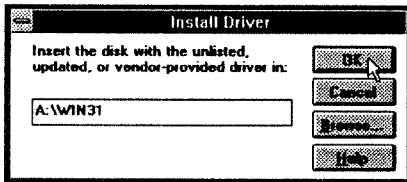


4. Click [Add...].
The [Add] dialog box will appear.
5. Select [Unlisted or Updated Driver], and click [OK].



The [Install Driver] dialog box will appear.

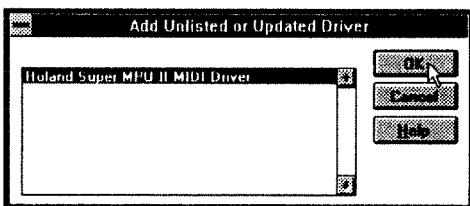
6. Insert the Super MPU II Application System Disk into the floppy disk drive.
7. In the text box, input A : \WIN31. Alternatively, click [Browse], specify the "WIN31" directory on drive A, and click [OK].



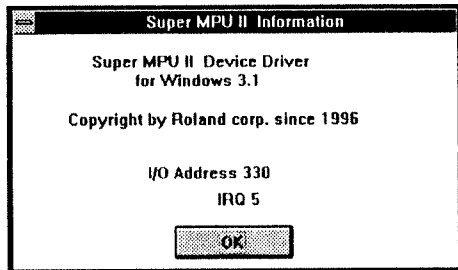
8. Click [OK].
The [Add Unlisted or Updated Driver] dialog box will appear.

* If the [Add Unlisted or Updated Driver] dialog box does not appear, the floppy disk drive was specified incorrectly in step 7. Check the drive name for your computer.

9. Select [Roland Super MPU II MIDI Driver], and click [OK].

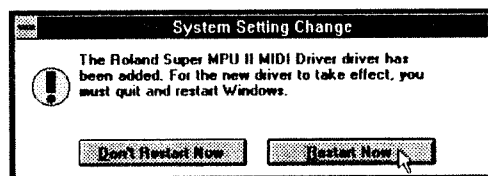


-
10. The [Super MPU II Information] dialog box will appear. Check that the I/O address and interrupt level settings are correct, and click [OK].



* If at this point the "Not found Super MPU II" message appears, either the "SMPUENA" enabler or the configuration utility is not installed, or is not in effect. In addition, it is possible that the I/O address conflicts with another board, or that the Super MPU II is not correctly inserted into the expansion slot.

11. So that the driver that you just installed will take effect, click [Restart Now] to restart Windows.



The Super MPU II driver has now been installed into Windows 3.1.

3. MIDI Mapper Settings

Next you will make MIDI Mapper settings to use the installed driver.

1. In the [Main] group of [Program Manager], double-click [Control Panel].

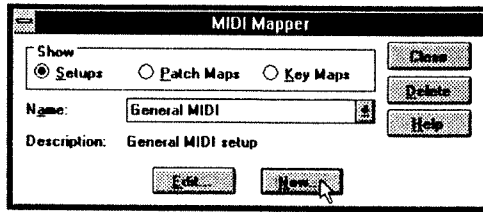


2. In the [Control Panel], double-click [MIDI Mapper].



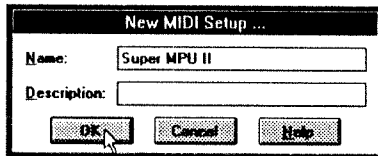
The [MIDI Mapper] dialog box will appear.

3. From [Show], choose [Setups] and click [New...].




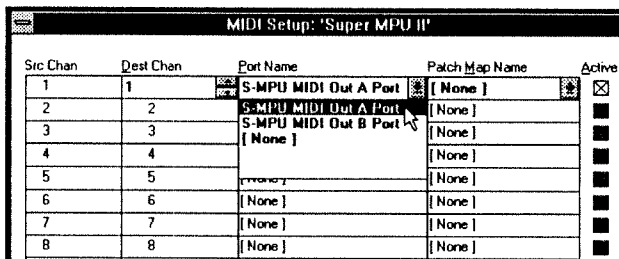
The [New MIDI Setup] dialog box will appear.

4. In the [Name] text box, input **Super MPU II** and click [OK].

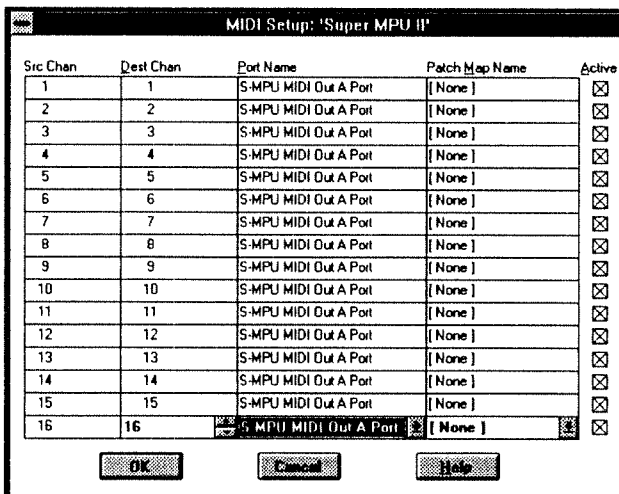


The [MIDI Setup] dialog box will appear.

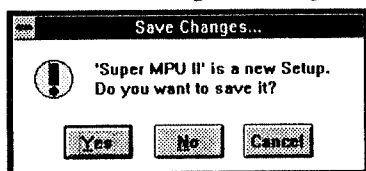
5. Click the  button of [Port Name] for channel 1, and select [S-MPU MIDI Out A Port] from the menu.



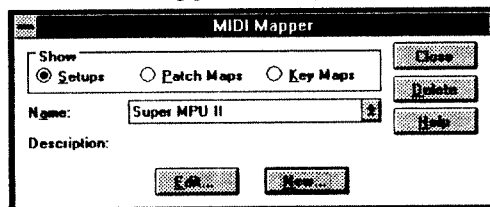
6. In the same way, set the [Port Name] for channels 2—16 to [S-MPU MIDI Out A Port].



-
7. When you have finished making settings for all channels, click [OK].
The [Save Changes] dialog box will appear.



8. Click [Yes].
The [MIDI Mapper] dialog box will appear.



9. Click [Close].
When you click [Close], the current settings will be applied to [Super MPU II].

This completes MIDI mapper settings.

Now refer to "Installing the Super MPU II Applications" (p. 18) and install the Super MPU II applications.

5

Use with MS-DOS® Applications

This section explains how the Super MPU II can be used from MS-DOS applications. In order for Super MPU II to be used from an MS-DOS application, the resource values specified for the MS-DOS application must match the resource values of the Super MPU II.

1. Determine the I/O address and interrupt level settings that have been made for the MS-DOS application.
 - * The procedure will differ for each application. Refer to the owner's manual for your application.
2. Super MPU II settings will differ for the following cases.

• If you are using Windows 95

In order for an MS-DOS application to be used under Windows 95, the application must be started up when the Super MPU II driver is not being used.

To disable the Super MPU II driver, view the Super MPU II driver properties in [Device Manager], un-check [Device usage] in the [General] tab, and then re-start.

Next, refer to "If You Are Using Windows 95" in "Modifying the Resource Settings" (p.28), and modify the resource settings. Note that you will also need to check the properties for the MS-DOS application you intend to use, and for "MS-DOS Prompt." In the properties dialog box, click on [Advanced] in the [Program] tab, then check to make sure that [MS-DOS mode] is not checked. For details on setting [Properties], refer to the online manual for Windows.

Some MS-DOS applications will not run in a window. In this case, use the full-screen display.

• If you are using MS-DOS/Windows 3.1

The "SMPUENA" enabler must be installed.

- * If the configuration utility is installed, and Plug & Play functionality is enabled, you will have to use the configuration utility to make resource settings for Super MPU II. In some cases, it will not be possible to use Super MPU II from an MS-DOS application. Delete the Plug & Play functionality, and install SMPUENA. This means that in this case, it will not be possible to simultaneously use other Plug & Play compatible peripheral equipment.

For installation of SMPUENA, refer to "Installing the "SMPUENA" Enabler" (p. 21).

If SMPUENA is already installed, refer to "If You Are Using the "SMPUENA" Enabler (MS-DOS/Windows 3.1)" in "Modifying the Resource Settings" (p. 29), and set the Super MPU II I/O address and interrupt level.

- * If the MS-DOS application does not operate correctly, return to step 1 and select other possible values.

6

Modifying the Resource Settings

1. If You Are Using Windows 95

1. Open the [Control Panel], and double-click [System].
 2. In [Sound, video, and game controllers] of the [Device Manager] page, select [Super MPU II for Windows95] and click [Properties].
 3. Open the [Resources] page, and un-check [Use automatic settings].
 4. Under [Resource type], select [Interrupt Request], click [Change Setting], and modify the setting as desired. In the same way, make changes to [Input/Output Range]. At this time, make sure that the [Conflicting device list] shows "No conflicts."
 5. Complete the settings and click [OK], and a [Creating a Forced Configuration] dialog box will appear. Click [Yes].
- * At the [Sound, video, and game controllers] item of [Control Panel]-[System]-[Device Manager], make sure that the [Super MPU II for Windows95] icon does not have a "!" symbol.

2. If You Are Using a Configuration Utility (Windows 3.1)

1. Start up the configuration utility.
 2. In "Cards Configured In System:" select [Roland Super MPU II S-MPU-IIAT], and click the [Modify] button.
 3. In the [Card Configuration] dialog box, click [Settings].
 4. The [Configuration Settings] dialog box will appear. Modify the resource settings.
 5. When you have finished making resource settings, click [OK] and follow the on-screen directions to save the settings.
 6. Exit Windows, and re-start your computer.
- * For details on the procedure, refer to the owner's manual for your configuration utility.

.....

3. If You Are Using the "SMPUENA" Enabler (MS-DOS/Windows 3.1)

1. If Windows 3.1 is running, exit it to return to DOS.
2. At the DOS prompt, type `C:\SMPU2\SMPUENA S` and press the enter key. Alternatively, type `SMPUENA S` when in the "SMPU2" directory of the hard disk drive, and press the enter key.
Re-setting of the "SMPUENA" enabler will begin.
 - * The "C:\SMPU2" here is the directory into which SMPUENA was installed. If you have used a different directory name, modify this as appropriate.
3. The "Select the startup drive" message will appear, so select the drive from which MS-DOS will start up.
 - * SMPUENA settings will be stored in the "AUTOEXEC.BAT" file on this startup drive.
4. The "Select I/O port to use" message will appear. Select the I/O port which Super MPU II will use.
 - * If the "Setting may conflict with another device" message appears, the I/O port you selected conflicts with another device. Select a different I/O port.
5. The "Select interrupt number to use" message will appear. Select the interrupt number which Super MPU II will use.
 - * If the "Setting may conflict with another device" message appears, the interrupt number you selected conflicts with another device. Select a different interrupt number.
6. After a message confirming your settings appears, the "Setup completed" message will appear. Press the enter key.

This completes the enabler settings.

7

Appendices

1. Troubleshooting

* S-MPU II Help contains more detailed information on troubleshooting and the most recent information about the system. Refer to it as well.

Case 1: Cannot install

- Is there sufficient space in the hard disk?

When installation cannot be performed correctly, such as when it is not possible to specify a hard disk as the installation destination, the problem might be that there is not enough free space on the hard disk. In this case, delete unneeded files to increase the free space.

- Was the correct drive name specified for installation?

The explanations in this document use the drive names that are assumed in page 16, but if your computer uses different drive names, substitute the appropriate drive names as you read the explanations.

- Was another application running when you attempted to install?

Exit all applications, and perform the installation once again.

- If you do not understand the explanations for each step, for example if you are using Windows for the first time, first read the manual for your computer and for Windows to gain a basic familiarity with operation. Then perform the installation.

- If you are using Windows 3.1

- If many icons are registered in the [Program Manager], installation may not be possible in some cases. Delete unneeded icons, and perform the installation once again.

Case 2: Applications do not work

- Do the interrupt level or I/O address of the Super MPU II coincide with the settings for other devices connected to the computer, or with the settings for the computer itself? Check the settings of the other peripherals and of the computer once again.

* In particular, if recording is not possible, it could be that the interrupt level is the same as some other device.

* For details on how to set the Super MPU II interrupt level and I/O address, refer to "Modifying the Resource Settings" (p. 28)

* Page 33 provides information on problems unique to models of computer. Refer to it as necessary.



- If you are using Windows 95

- Are resources assigned to the Super MPU II driver?

In [Sound, video, and game controllers] of [Control Panel]-[System]-[Device Manager], if the [Super MPU II for Windows95] icon has a “!” mark, the Super MPU II may be conflicting with another peripheral device. Refer to “Modifying the Resource Settings” (p. 28) and modify the resource assignments. If it still does not operate, remove all device drivers and resident programs before using it.

- If you are using Windows 3.1

- Is the “SMPUENA” enabler or a configuration utility installed?

In order to use Super MPU II from Windows 3.1, either the “SMPUENA” enabler or a configuration utility must be used to assign resources. Refer to “Installing the “SMPUENA” Enabler” (p. 21).

Case 3: A display of “Application error” appears

- Is the Super MPU II driver installed?

- If you are using Windows 95

Refer to “Installing the Super MPU II Driver (Windows 95)” (p. 16), and install the Super MPU II Driver which is included with the package.

- If you are using Windows 3.1

Refer to “Installing the Super MPU II Driver (Windows 3.1)” (p. 22), and install the Super MPU II Driver which is included with the package.

- Are a large number of applications running?

It may be that there is no more memory, and further applications cannot be started up. Exit other applications before you start a Super MPU II application.

- Are a large number of applications using the Super MPU II Driver?

Exit the application which is currently using the Super MPU II Driver before you start a new application.

Case 4: No sound

- Is the Super MPU II installed correctly?

Make sure that it is pushed firmly all the way into the expansion slot of your computer.

- Are the MIDI cables and audio cables connected correctly?

Refer to “Example Connections” (p. 12) and connect the cables correctly.

- Is the volume raised on your sound generator, audio playback system, and application?

Check the respective volume settings.

- Are the sound generator settings correct?

Set the computer switch on the sound module to the “MIDI” position.

-
- Is the Super MPU II Driver installed?

- If you are using Windows 95

Refer to "Installing the Super MPU II Driver (Windows 95)" (p. 16), and install the Super MPU II Driver which is included with the package.

- If you are using Windows 3.1

Refer to "Installing the Super MPU II Driver (Windows 3.1)" (p. 22), and install the Super MPU II Driver which is included with the package.

Case 5: Notes input from an external device are played twice

- If "SMPUPLAY for Windows" is used simultaneously with an MME-compatible application (such as "Cakewalk Professional"), and the MIDI IN connector of Super MPU II is connected to an external MIDI device, notes may be sounded twice. This is because the MIDI Thru function of the Super MPU II is independent of the MIDI Thru function of the MME-compatible application.

In this case, turn off the MIDI Thru setting of the Super MPU II.

To turn off MIDI Thru for Super MPU II ("SMPUPLAY for Windows"), make the setting in "S-MPU MIDI PATCHER."

Case 6: The driver select dialog box did not appear when Windows 95 was started up for the first time after installing the Super MPU II

- Is an old driver installed?

In the [Sound, video, and game controllers] group or another group of [Control Panel]-[System]-[Device Manager], make sure that [Super MPU II for Windows95] is displayed. If it is displayed, select [Super MPU II for Windows95] and click [Remove]. Then click [Refresh].

- * If Windows 95 is installed after you have already installed the Super MPU II, an MPU-401 driver may be installed automatically, or it may be recognized as an unknown device and installed as [Other devices] without a driver.

Case 7: DOS games do not run from the Windows 95 DOS prompt

- Refer to "Use with MS-DOS applications" (p. 27)

.....

2. Information on Problems with Specific Models of Computer

Caution is necessary when using the Super MPU II with Windows 3.1/MS-DOS or with other peripheral devices which are not Plug & Play compatible. This section will provide some representative examples of problems which can occur with specific models of computer.

If the software cannot be installed correctly onto the drive, or if the application does not work, it could be that the interrupt level or I/O address is in conflict with another peripheral device, such as a Sound Blaster. Refer to "Modifying the Resource Settings" (p. 28), and change the interrupt level or I/O address settings of the S-MPU-IIAT.

Alternatively, you could change the interrupt level or I/O address of the other peripheral device (Sound Blaster or similar). Here we will give examples of a computer with a Sound Blaster installed and an IBM Aptiva computer.

• For a computer in which Sound Blaster is installed

A computer in which a variety of peripheral equipment is already installed may contain an MPU-401 compatible expansion board such as the Sound Blaster. In order to be compatible with the MPU, the external MIDI port of these boards is set to the same I/O address (330H) as the MIDI interface.

The interrupt levels and I/O address which can be selected on the Sound Blaster are as follows. (The bold letters indicate the factory settings.)

Interrupt level **5**, 7, 7(2), 10
I/O address 300H, **330H**

First modify the Sound Blaster settings and make sure that it operates correctly even after the change. Then install the S-MPU-IIAT.

1. Remove the MSEL jumper from the Sound Blaster board to set the I/O address to [300].
For details on this setting, refer to the manual for your Sound Blaster.
In this case, make sure that a board other than the Sound Blaster is not using [300H].
2. In the driver settings for Sound Blaster, change the MIDI port setting from [330H] to [300H]. There are driver settings for Windows and for DOS.

• For an IBM Aptiva

On IBM Aptiva models which have MWAVE, the interrupt level and I/O address of the MWAVE MIDI functionality may conflict.

Modify the MIDI settings of MWAVE.

1. In the [MWAVE] group of Windows, start up MWAVE settings utility.
2. Set [MIDI] to disable.

.....

3. If You Wish to Use Two Super MPU Units

• **When using two Super MPU II units**

Even if two Super MPU II units are inserted into slots, Windows 95 will correctly recognize them. However, it will be difficult to tell which board is the first and which is the second. We recommend that you install them one at a time for recognition purposes.

* Windows 3.1 cannot use two Super MPU II units.

• **If you are already using the S-MPU/AT**

For Windows 95, the S-MPU/AT driver must be upgraded to a version which supports Windows 95. Please contact the dealer where you purchased the package.

* Windows 3.1 is not able to simultaneously use both the Super MPU II and S-MPU/AT.

Specifications

MIDI Interface Connectors	Super MPU compatible	* except LTC (SMPTE) Sync
	Main Board:	Port Socket
Power Supply	MIDI Connector Box:	MIDI Connector (In x 2, Out x 2)
		Port Socket
Current Draw	Supplied from the computer	
Dimensions	70 mA (during operation)	
	Main Board:	5 (W) x 6-3/4 (D) x 3/4 (H) inches 126 (W) x 171 (D) x 18 (H) mm
	MIDI Connector Box:	2 (W) x 2-1/2 (D) x 1-1/8 (H) inches 51 (W) x 62.2 (D) x 28.6 (H) mm
Weight	Main Board:	90 g
	MIDI Connector Box:	51 g
Accessories	8-pin DIN Connector	
	Super MPU II Application System Disk 2HD x 1	
	Owner's Manual	

* In the interest of product improvement, 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.

ARGENTINA

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

BRAZIL

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

CANADA

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

Roland Canada Music Ltd.

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

MEXICO

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

La Casa Wagner de

Guadalajara s.a. de c.v.
Av. Corona No. 202 S.J.
Guadalajara, Jalisco Mexico
C.P. 4100 MEXICO
TEL: (03) 613 1414

PANAMA

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

U. S. A.

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

VENEZUELA

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

AUSTRALIA

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

NEW ZEALAND

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

CHINA

Beijing Xinghai Musical
Instruments Co., Ltd.
2 Huangmuyang Chao Yang
District, Beijing, CHINA
TEL: (010) 6774 7491

HONG KONG

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

INDONESIA

PT Galestra Inti
Kompleks Perkantoran
Duta Merlin Blok E No.6—7
Jl. Gajah Mada No.3—5,
Jakarta 10130,
INDONESIA
TEL: (021) 6335416

KOREA

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

MALAYSIA

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

PHILIPPINES

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

SINGAPORE

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

CRISTOFORI MUSIC PTE LTD

335, Joo Chiat Road SINGAPORE
1542
TEL: 3450435

TAIWAN

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

THAILAND

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

BAHRAIN

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

IRAN

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

ISRAEL

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

JORDAN

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

KUWAIT

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

LEBANON

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

OMAN

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

QATAR

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

SAUDI ARABIA

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

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Technical Light & Sound
Center
Khaled Ebn Al Walid St.
P.O. Box 13520
Damascus - SYRIA
TEL: (011) 2255 384

TURKEY

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

U.A.E

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

EGYPT

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

KENYA

Musik Land Limited
P.O. Box 12183 Moi Avenue
Nairobi Republic of KENYA
TEL: (2) 338 346

MAURITIUS

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

REUNION

FO - YAM Marcel
25 Rue Jules MermanZL
Chaudron - BT79 97491
Ste Clotilde REUNION
TEL: 28 29 16

SOUTH AFRICA

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

Paul Bothner (PTY) Ltd.

17 Werdmuller Centre Claremont
7700
Republic of SOUTH AFRICA
TEL: (021) 64 4030

AUSTRIA

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

BELGIUM/HOLLAND/ LUXEMBOURG

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

BELOUSSIA

TUSHE
UL. Rabkorovskaya 17
220001 MINSK
TEL: (0172) 764-911

CYPRUS

Radex Sound Equipment Ltd.
17 Diagorou St., P.O. Box 2046,
Nicosia CYPRUS
TEL: (02) 453 426
(02) 466 423

DENMARK

Roland Scandinavia A/S
Langebrogade 6 Post Box 1937
DK-1023 Copenhagen K.
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TEL: 32 95 3111

FRANCE

MUSIKENGRO
Zac de Follioues 01706
Les Echets Miribel FRANCE
TEL: 472 26 2700

FINLAND

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

GERMANY

Roland Elektronische
Musikinstrumente
Handelsgesellschaft mbH.
Oststrasse 96, 22844 Norderstedt,
GERMANY
TEL: (040) 52 60090

GREECE

V. Dimitriadis & Co. Ltd.
20, Alexandras St. & Boukolinas
54 St. 106 82 Athens, GREECE
TEL: (01) 8232415

HUNGARY

Intermusica Ltd.
Warehouse Area 'DEPO' Pf.83
H-2046 Torokbalint, HUNGARY
TEL: (23) 338 041

IRELAND

The Dublin Service Centre
Audio Maintenance Limited
11 Brunswick Place Dublin 2
Republic of IRELAND
TEL: (01) 677322

ITALY

Roland Italy S. p. A.
Viale delle Industrie, 8
20020 Arese Milano, ITALY
TEL: (02) 93581311

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Roland Scandinavia Avd.
Kontor Norge
Lillokervensien 2 Postboks 95
Lilloaker N-0216 Oslo
NORWAY
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UL. Blukowa 32, 03624 Warszawa
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PORTUGAL

Caius - Tecnologias Audio e
Musica , Lda.
Rue de Catarina 131
4000 Porto, PORTUGAL
TEL: (02) 38 4456

RUSSIA

PETROSHOP Ltd.
11 Sayanskaya Street Moscow
11531, RUSSIA
TEL: 095 307 4892

Slami Music Company

Sadujva-Triumfalnaja st., 1b
103006 Moscow, RUSSIA
TEL: 095 209 2193

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Roland Electronics
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Calle Bolivia 239 08020 Barcelona,
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Musitronic AG
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Mira Str. 19/108
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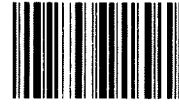
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