≡EDIROL≡

5 IN/5 OUT
USB MIDI INTERFACE/MIDI PATCHER

UM-550

8 IN/8 OUT
USB MIDI INTERFACE/MIDI PATCHER

UM-880

Owner's Manual

Thank you for purchasing the UM-550/880.
This document explains how to setup the UM-550/880 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: "IMPORTANT SAFETY INSTRUCTIONS" (Owner's manual p. 2), "USING THE UNIT SAFELY" (Owner's manual pp. 3--5), and "IMPORTANT NOTES" (Owner's manual p. 6,7). 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, Owner's Manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

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

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

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

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Never use with a cart, stand, tripod, bracket, or table except as specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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.

....

UM-880

- Do not open or perform any internal modifications on the unit.

....

UM-550

- Do not open (or modify in any way) the unit or its AC adaptor.

....

- 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 retailer, the nearest EDIROL/Roland Service Center, or an authorized EDIROL/Roland distributor, as listed on the "Information" page.

....

- 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
  - Exposed to rain; or are
  - Dusty; or are
  - Subject to high levels of vibration.

⚠ WARNING

- This unit should be used only with a rack or stand that is recommended by Roland.

....

- When using the unit with a rack or stand recommended by Roland, the rack or stand must be carefully placed so it is level and sure to remain stable. If not using a rack or stand, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.

....

UM-880

- The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the unit.

....

UM-550

- Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. 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.

....

- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!

⚠WARNING

- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.

....

- Immediately turn the power off, remove the AC adaptor from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page when:
    - The AC adaptor or the power-supply cord has been damaged; or
    - Objects have fallen into, or liquid has been spilled onto the unit; or
    - The unit has been exposed to rain (or otherwise has become wet); or
    - The unit does not appear to operate normally or exhibits a marked change in performance.

....

- 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!)

....

- Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.

....

- Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

....

- DO NOT play a CD-ROM disc on a conventional audio CD player. The resulting sound may be of a level that could cause permanent hearing loss. Damage to speakers or other system components may result.

⚠ CAUTION

- The unit should be located so that its location or position does not interfere with its proper ventilation.

....

- The unit and the AC adaptor should be located so their location or position does not interfere with their proper ventilation.

....

- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet or this unit.

....

- Always grasp only the output plug or the body of the AC adaptor when plugging into, or unplugging from, this unit or an outlet.

....

- Whenever the unit is to remain unused for an extended period of time, disconnect the AC adaptor.

....

- 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.

....

- Never climb on top of, nor place heavy objects on the unit.

....

- Never handle the power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.

....

- Never handle the AC adaptor body, or its output plugs, with wet hands when plugging into, or unplugging from, an outlet or this unit.

....

- Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.

....

- Before moving the unit, disconnect the AC adaptor and all cords coming from external devices.

<table>
<tr><td colspan="2">⚠ CAUTION</td></tr>
</table>

⚠ CAUTION

UM-880

- Before cleaning the unit, turn off the power and unplug the power cord from the outlet.

....

UM-550

- Before cleaning the unit, turn off the power and unplug the AC adaptor from the outlet.

....

UM-880

- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.

....

⚠ CAUTION

UM-550

- Whenever you suspect the possibility of lightning in your area, disconnect the AC adaptor from the outlet.

....

- Should you remove screws, make sure to put them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally.

....

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* Screen shots in this documents are reprinted with permission from Microsoft Corporation.

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

* Windows® 2000 is known officially as: "Microsoft® Windows® 2000 operating system."

* Windows® Me is known officially as: "Microsoft® Windows® Millennium Edition operating system."

* Windows® 98 is known officially as: "Microsoft® Windows® 98 operating system."

* Apple and Macintosh are registered trademark of Apple Computer, Inc.

* MacOS is a trademark of Apple Computer, Inc.

* OMS is a registered trademark of Opcode Systems, Inc.

* FreeMIDI is a trademark of Mark of the Unicorn, Inc.

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

IMPORTANT NOTES

In addition to the items listed under "IMPORTANT SAFETY INSTRUCTIONS" and "USING THE UNIT SAFELY" on pp.2 -- 5, please read and observe the following:

Power Supply

- Do not use this unit on the same power circuit with any device that will generate line noise (such as an electric motor or variable lighting system).

  UM-550

- The AC adaptor will begin to generate heat after long hours of consecutive use. This is normal, and is not a cause for concern.

- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

Placement

- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.

- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.

- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.

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 cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.

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

Additional Precautions

- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the unit. To protect yourself against the risk of loosing important data, we recommend that you periodically save a backup copy of important data you have stored in the unit's memory in another MIDI device (e.g., a sequencer).

- Unfortunately, it may be impossible to restore the contents of data that was stored in another MIDI device (e.g., a sequencer) once it has been lost. Roland Corporation assumes no liability concerning such loss of data.

- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.

- When connecting / disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.

  UM-880

- A small amount of heat will radiate from the unit during normal operation.

- 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).

- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.

Handling CD-ROMs

- Avoid touching or scratching the shiny underside (encoded surface) of the disc. Damaged or dirty CD-ROM discs may not be read properly. Keep your discs clean using a commercially available CD cleaner.

Contents

Features of the UM-550/880

The UM-550/880 is a USB MIDI interface, which uses USB for connecting to your computer.

5-in/5-out or 8-in/8-out USB MIDI interface

The UM-550 has five sets of MIDI input/output ports, letting you control up to 80 channels simultaneously. Since up to four units can be used together, you can expand your system to 320 channels.

The UM-880 has eight sets of MIDI input/output ports, letting you control up to 128 channels simultaneously. Since up to four units can be used together, you can expand your system to 512 channels.

Connection to your computer is extremely easy—just one USB cable. Support for "hot plugging" means that you are free to connect or disconnect the unit even while your computer is powered-on.

Hardware-based MIDI Patcher functionality

The UM-550/880 features hardware MIDI patcher functionality, which uses **HDMR** technology to guarantee low latency. MIDI can be routed directly, simply by pressing the panel buttons; and there are none of the complicated settings that are all too common on software patchers. When a computer is not connected, the UM-550/880 can also be used as a stand-alone MIDI patcher.

HDMR (Hardware Direct MIDI Routing)

Connects port to port in hardware, guaranteeing low latency.

High-speed transmission of MIDI data

FPT technology allows optimal transmission of MIDI data via USB, for high-speed and stable transmission of data. Performance will always be optimal, regardless of the applications you use.

FPT (Fast Processing Technology for MIDI transmission)

Makes effective use of the USB bandwidth according to the amount of transmitted MIDI data, performing optimal MIDI data processing at all times.

Store up to five/eight different patches

The input/output routing connections you specify can be stored in one of five (UM-550), or eight (UM-880) memories.

Easy connection to your computer via USB cable

You can connect the UM-550/880 to your computer even while your computer is powered-on. On the UM-880, you can also switch to the front panel USB connector.

Contents of the Package

The box in which the UM-550/880 was shipped should contain the following items. After opening the box, first check to make sure that all the items are included. If any items are missing, please contact the store where you purchased the UM-550/880.

●USB MIDI Interface

UM-550
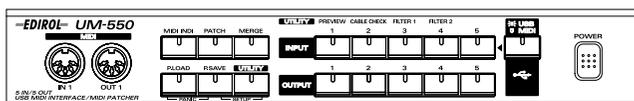
UM-880
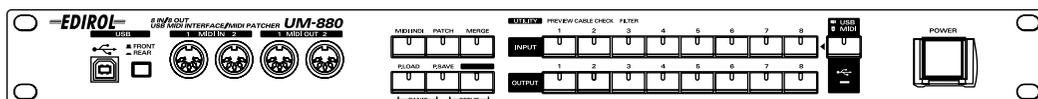
●CD-ROM

Be sure to read the Readme_e.txt file found on the CD-ROM.

The Readme_e.txt file contains additional information regarding changes or updates that may have occurred after this manual was printed.

* DO NOT play a CD-ROM disc on a conventional audio CD player. The resulting sound may be of a level that could cause permanent hearing loss. Damage to speakers or other system components may result.*

●AC cable   UM-880

This is included only with the UM-880.

This is the only AC cable you should use with the UM-880. Do not use any AC cable other than the supplied one, since doing so may cause malfunction.

●AC adaptor   UM-550

This is included only with the UM-550.

This is the only AC adaptor you should use with the UM-550. Do not use any AC adaptor other than the supplied one, since doing so may cause malfunction.

●Rack-mount adaptor   UM-550

Use this when you want to install the UM-550 in an audio rack. Two rack ears are included.

(->**Attaching the rack-mount adaptor** (p. 66))

●Desk-stand mount   UM-550

Use this when you want to place the UM-550 vertically.

(->**Attaching the desk-stand mount** (p. 66))

●USB Cable

Use this to connect the USB connector of your computer with the USB connector of the UM-550／880. For details on connections and driver installation, refer to Windows (p. 14) or Macintosh (p. 29).

*   *Please use only the included USB cable. If you require a replacement due to loss or damage, please contact a "EDIROL/Roland Service Center" listed in the "Information" section at the end of this manual.*

●Owner's Manual (this document)

●FUNCTION LIST

Names of Things and What They Do

Front panel

UM-550
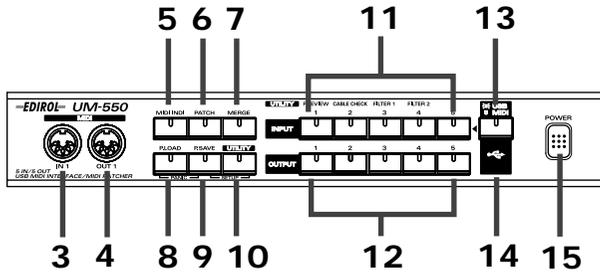
UM-880
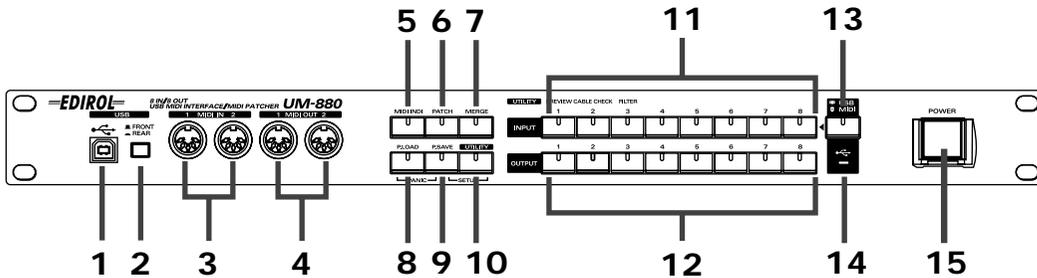
1. USB connector (front) `UM-880`

A USB cable connected between this connector and your computer is used to transfer MIDI messages, as well as the signals for controlling the UM-880.

2. USB select switch `UM-880`

This switch selects whether the front or rear USB connector will be used.

NOTE *While a MIDI application is running, do not connect or disconnect the USB cable or operate the USB select switch. Doing so may cause your computer to hang up.*

3. MIDI IN connectors

These connectors are connected to the MIDI OUT connectors of other MIDI devices, and used to receive MIDI messages.

4. MIDI OUT connectors

These connectors are connected to the MIDI IN connectors of other MIDI devices, and used to transmit MIDI messages.

5. MIDI INDI button

Press this button to enter **MIDI INDI mode**. In MIDI INDI mode, the corresponding INPUT and OUTPUT indicators will light when MIDI data is input, allowing you to check the input and output connections. (p. 36)

5. PATCH button

Press this button to enter **PATCH mode**. In Patch mode you can specify the current patch.
Press an INPUT button, and then press OUTPUT buttons to specify the output destination(s) for the specified input. (p. 37)

UM-880 On the UM-880, you will automatically enter **PATCH DISPLAY mode** approximately one minute later. In PATCH DISPLAY mode, the settings of the current patch will be displayed in sequence beginning with INPUT 1, allowing you to check the connections.

Current patch

The current MIDI input∕output settings are referred to as the "**current patch**."

7. MERGE button

Press this button to enter **MERGE mode**. When you press this button so its indicator lights, the indicators of the **INPUT buttons** for ports that are currently being merged will light. If you want to change the ports that are being merged, press the **INPUT button(s)**. (p. 39)

8. PATCH LOAD button

Use this button to recall connection settings that you've saved in memory.

9. PATCH SAVE button

Use this button to store connection settings into memory.

10. UTILITY button

Press this button to enter **UTILITY mode**. In UTILITY mode, you can check MIDI connections, check for broken cables, and make MIDI event filter settings. (p. 42)

11. INPUT buttons/indicators

These buttons are used to select MIDI IN connectors, and to make menu selections.

12. OUTPUT buttons/indicators

These buttons are used to select MIDI OUT connectors, and to make menu selections.

13. USB/MIDI select button

If this button is lit, the INPUT buttons correspond to inputs from USB.
If this button is dark, the INPUT buttons correspond to inputs from the MIDI IN connectors.

14. USB indicator

After a USB cable is used to connect the UM-550∕880 to your computer, this indicator will light when the connection is operable.

15. Power switch

This switch turns the power on∕off.

Rear panel

UM-550

17 16   18   19   20
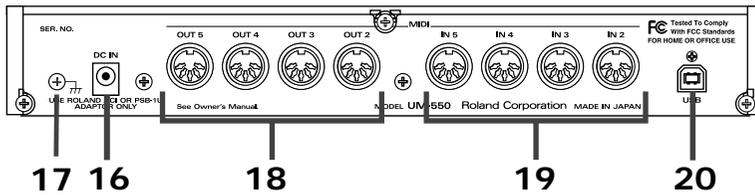
UM-880

16 17   18   19   20
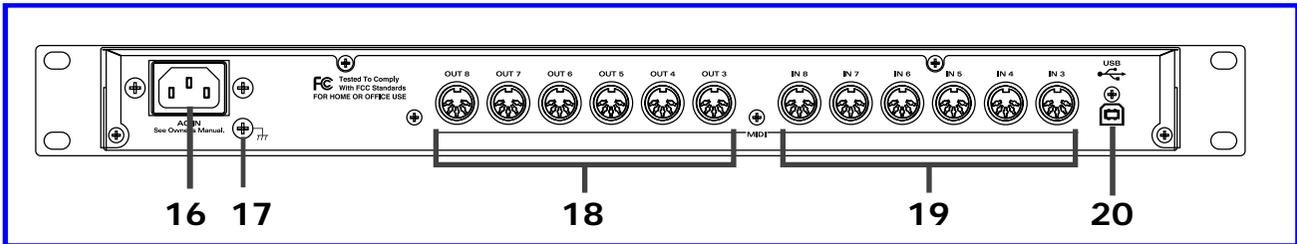
16. AC inlet   `UM-880`

Connect the supplied AC cable here. Plug it in firmly, so it does not get inadvertently pulled out.

16. AC adaptor jack   `UM-550`

Connect the supplied AC adaptor here.

17. Grounding terminal

This prevents the panel surface from developing an electrical charge.

In some cases, depending on the environment in which the unit is installed, the surface of the panel may sometimes feel rough and grainy. This is due to an infinitesimal electrical charge, which is absolutely harmless. However, if you are concerned about this, connect the ground terminal (see figure) with an external ground. When the unit is grounded, a slight hum may occur, depending on the particulars of your installation. If you are unsure of the connection method, contact the nearest EDIROL/Roland Service Center, or an authorized EDIROL/Roland distributor, as listed on the "Information" page.

❍ Unsuitable places for connection
- Water pipes (may result in shock or electrocution)
- Gas pipes (may result in fire or explosion)
- Telephone-line ground or lightning rod (may be dangerous in the event of lightning)

18. MIDI OUT connectors

These connectors are connected to the MIDI inputs of other MIDI devices, and transmit MIDI messages.

19. MIDI IN connectors

These connectors are connected to the MIDI outputs of other MIDI devices, and receive MIDI messages.

20. USB connector (rear)

A USB cable can be used to connect this connector to your computer, allowing MIDI messages and control messages for the UM-880 to be exchanged.

Installing & Setting Up the Driver (Windows)

In order to use the UM-550/880, you must first install the UM-550/880 driver. The UM-550/880 Driver is included in the CD-ROM.

The installation procedure will differ depending on your system.
Please proceed to one of the following sections, depending on the system you use.

Although the descriptions that follow are based on the UM-550, for installing software and making settings, UM-880 users can simply substitute the name "UM-880" wherever the name "UM-550" appears, except in places where a separate, specific reference to the UM-880 has been made.

*   To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.

USB connection

■ Windows XP users

1

With the UM-550 disconnected, start up Windows.

Disconnect all USB cables except for a USB keyboard and USB mouse (if used).

2

Open the **System Properties** dialog box.

1. Click the Windows **Start** menu, and from the menu, select **Control Panel** .

2. In " **Pick a category**," click "**Performance and Maintenance**."

3. In "**or pick a Control Panel icon**," click the **System** icon.

NOTE

If you are using Windows XP Professional, you must log on using a user name with an administrative account type (e.g., Administrator). For details on user accounts, please consult the system administrator of your computer.

MEMO

Depending on how your system is set up, the **System** icon may be displayed directly in the **Control Panel** (the Classic display). In this case, double-click the **System** icon.

3

Open the **Driver Signing Options** dialog box.

Click the **Hardware** tab, and then click **[Driver Signing]**.
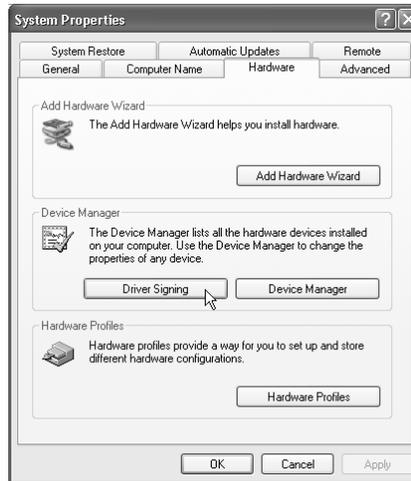
4

Make sure that "**What action do you want Windows to take?**" is set to "**Ignore.**"

If it is set to "**Ignore**", simply click **[OK]**.
If it is not set to "**Ignore**", make a note of the current setting ("Warn" or "Block"). Then change the setting to "**Ignore**" and click **[OK]**

MEMO

If you changed "**What action do you want Windows to take?**" in step 4, you must restore the previous setting after you have installed the driver. (->**If you changed "What action do you want Windows to take?"** (p. 19))

5

Close the **System Properties** dialog box.

Click **[OK]**.

6

Exit all currently running software (applications).

Also close any open windows. If you are using virus checking or similar software, be sure to exit it as well.

7

Prepare the CD-ROM.

Insert the CD-ROM into the CD-ROM drive of your computer.

8

Open the "**Run...**" dialog box.

Click the Windows **start** button. From the menu that appears, select "**Run...**"

9

In the dialog box that appears, input the following into the "**Open**" field, and click **[OK]**.

UM-550 users:
D:\UM-550\WinXP_2k\SETUPINF.EXE
UM-880 users:
D:\UM-880\WinXP_2k\SETUPINF.EXE

* *The drive name "**D:**" may be different for your system. Specify the drive name of your CD-ROM drive.*

MEMO

In this manual, the location of folders and files is given in terms of the file path, using \ as the delimiter. For example, **USB_XP2K\SETUPINF.EXE** indicates the **SETUPINF.EXE** file found in the **USB_XP2K** folder.
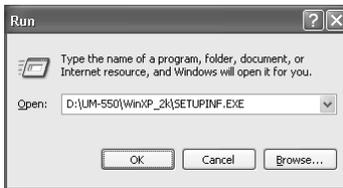
10

The **SetupInf** dialog box will appear.

You are now ready to install the driver.

* *Do not click **[OK]** at this time.*
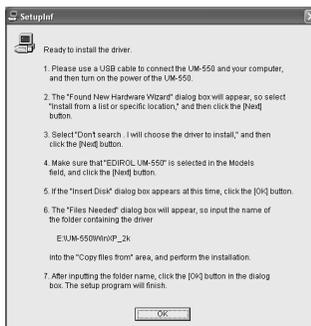
11

Connect the UM-550.

1. With the power switch turned **OFF**, connect the **AC adaptor** to the **UM-550**. Alternatively, connect the **AC cable** to the **UM-880**.

2. Connect the **AC adapto**r or the **AC cable** to an electrical outlet.

3. Use the **USB cable** to connect the **UM-550** to your **computer**.

12

Set the UM-550's **power switch** to the **ON** position.

Near the task bar, your computer will indicate "**Found New Hardware**." Please wait.

13

The **Found New Hardware** wizard will appear.

Make sure that the screen indicates "**EDIROL UM-550**," select "**Install from a list or specific location (Advanced)**," and click **[Next]**.

16

14

The screen will indicate "**Please choose your search and installation options**."

Select "**Don't search. I will choose the driver to install**," and click **[Next]**.
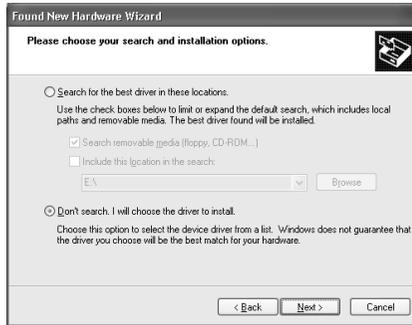
15

Make sure that the "**Model**" field indicates "**EDIROL UM-550**," and click **[Next]**. Driver installation will begin.

If in step 4 the "**What action do you want Windows to take**?" setting was not set to "Ignore", a "Digital signature not found" dialog box will appear.

If "What action do you want Windows to take?" is set to "Warn,"

1. Click **[Continue Anyway]**.

2. Continue the installation.

If "What action do you want Windows to take?" is set to "Block"

1. Click **[OK]**.

2. When the "**Found New Hardware Wizard**" appears, click **[Finish]**.

3. Perform the installation as described in the "**Troubleshooting**" section on **Device Manager shows "?", "!", or "USB Composite Device"** (p. 56).

16

The **Insert Disk** dialog box will appear.

Click **[OK]**.

17
The **Files Needed** dialog box will appear. Input the following into the "**Copy files from**" field, and click **[OK]**.

UM-550 users:
D:\UM-550\WinXP_2k
UM-880 users:
D:\UM-880\WinXP_2k

*   *The drive name "D:" may be different for your system. Specify the drive name of your CD-ROM drive.*
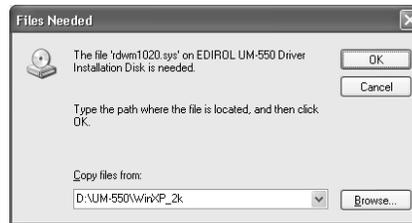
18
The **Found New Hardware** wizard will appear.

Make sure that the display indicates "**EDIROL UM-550**," and click **[Finish]**.
Wait until "**Found New Hardware**" appears near the taskbar.
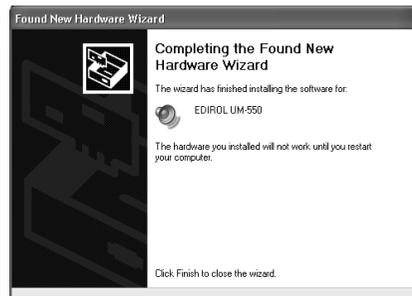
19
Restart Windows.

When driver installation has been completed, the **System Setting Change** dialog box will appear. Click **[Yes]**. Windows will restart automatically.

If you changed "What action do you want Windows to take?"

> If you changed the **What action do you want Windows to take?** setting in step 5, restore the original setting after Windows restarts.
>
> **1.** If you are using Windows XP Professional, log on to Windows using the user name of an administrative account (e.g., Administrator).
>
> **2.** Click the Windows **start** menu, and from the menu, select **Control Panel**.
>
> **3.** In "**Pick a category**," click "**Performance and Maintenance**."
>
> **4.** In "**or pick a Control Panel icon**," click the **System** icon. The System Properties dialog box will appear.
>
> **5.** Click the **Hardware** tab, and then click **[Driver Signing]**. The **Driver Signing Options** dialog box will appear.
>
> **6.** Return the **What action do you want Windows to take?** setting to the original setting (either "Warn" or "Block"), and click **[OK]**.
>
> **7.** Click **[OK]**. The **System properties** dialog box will close.

Nest, you need to make the driver settings.
(-> **Settings** (p. 26))

MEMO

Depending on how your system is set up, the **System** icon may be displayed directly in the **Control Panel** (the Classic display). In this case, double-click the System icon.

19

■ **Windows 2000 users**

1

With the UM-550 disconnected, start up Windows.

Disconnect all USB cables except for a USB keyboard and USB mouse (if used).

2

Log on to Windows as a **user with administrative privileges** (such as Administrator).

3

Open the **System Properties** dialog box.

Click the Windows **Start** button, and from the menu that appears, select **Settings | Control Panel**. In **Control Panel**, double-click the **System** icon.

4

Open the **Driver Signing Options** dialog box.

Click the **Hardware** tab, and then click **[Driver Signing]**.
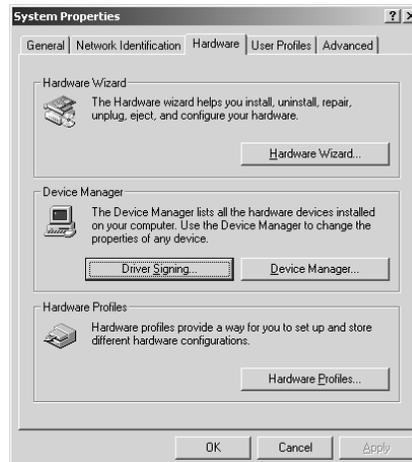
5

Make sure that "**File signature verification**" is set to "**Ignore**."

If it is set to "**Ignore**", simply click **[OK]**.
If it is not set to "**Ignore**", make a note of the current setting ("Warn" or "Block"). Then change the setting to "**Ignore**" and click **[OK]**.

MEMO

If you changed the "**File signature verification**" setting in **step 5**, restore the original setting after Windows restarts. (->**If you changed "File signature verification"** (p. 23))

6

Close the **System Properties** dialog box.

Click **[OK]**.

20

7
Exit all currently running software (applications).

Also close any open windows. If you are using virus checking or similar software, be sure to exit it as well.

8
Prepare the CD-ROM.

Insert the CD-ROM into the CD-ROM drive of your computer.

9
Open the "**Run...**" dialog box.

Click the Windows **Start** button. From the menu that appears, select "**Run...**"

10
In the dialog box that appears, input the following into the "**Open**" field, and click **[OK]**.
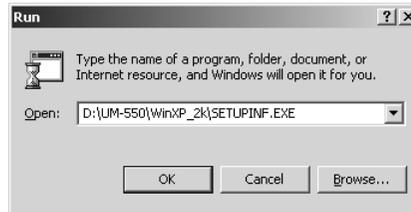
UM-550 users:
D:\UM-550\WinXP_2k\SETUP.EXE
UM-880 users:
D:\UM-880\WinXP_2k\SETUP.EXE

*   *The drive name "D:" may be different for your system. Specify the drive name of your CD-ROM drive.*

11
The **SETUPINF** dialog box will appear.

You are now ready to install the driver.

*   *Do not click [OK] at this time.*
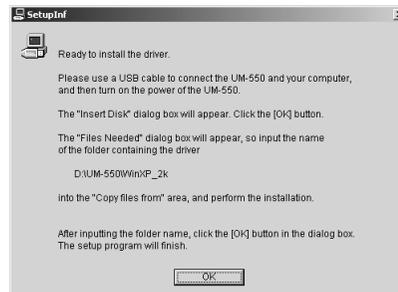
12
Connect the UM-550.

1. With the power switch turned OFF, connect the AC adaptor to the UM-550. Alternatively, connect the power cable to the UM-880.

2. Connect the AC adaptor or the power cable to an electrical outlet.

3. Use the **USB cable** to connect the **UM-550** to your **computer**.

MEMO

In this manual, the location of folders and files is given in terms of the file path, using \ as the delimiter. For example, **USB_XP2K\SETUPINF.EXE** indicates the **SETUPINF.EXE** file found in the **USB_XP2K** folder.

MEMO

If a message of "**The driver is already installed**" appears, you can connect the UM-550 to your computer and use it.

21

13 Set the UM-550's **power switch** to the **ON** position.

If in **step 5** the "**File signature verification**" setting was not set to "**Ignore**", a "**Digital signature not found**" dialog box will appear.

If "File signature verification" is set to "Warn,"

1. Click **[Yes]**.

2. Continue the installation.

If "File signature verification" is set to "Block"

1. Click **[OK]**.

2. When the "**New hardware detection wizard**" appears, click **[Finish]**.

3. Perform the installation as described in the "**Troubleshooting**" section on **Device Manager shows "?", "!", or "USB Composite Device"** (p. 56).

14 The **Insert Disk** dialog box will appear.

Click **[OK]**.

15 The **Files Needed** dialog box will appear.

Input the following into the "**Copy files from**" field, and click **[OK]**.

UM-550 users:
D:\UM-550\WinXP_2k
UM-880 users:
D:\UM-880\WinXP_2k
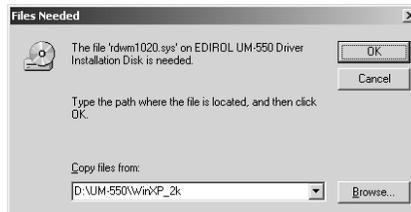
*   *The drive name "**D:**" may be different for your system. Specify the drive name of your CD-ROM drive.*

16
The "**Found New Hardware Wizard**" may be displayed.

Verify that "**EDIROL UM-550**" is displayed, and click **[Finish]**.

17
Restart Windows.

The **System Settings Change** dialog box may appear. Click **[Yes]**. Windows will restart automatically.
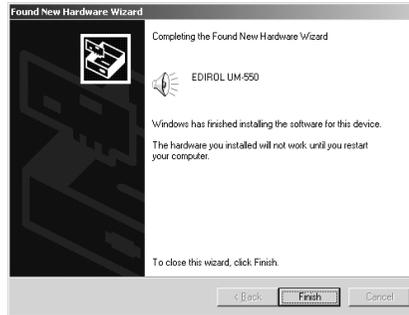
If you changed "File signature verification"

If you changed the "File signature verification" setting in step 5, restore the original setting after Windows restarts.

1. After Windows restarts, log in to Windows as a user with **administrative privileges**, (such as Administrator).

2. In the Windows desktop, right-click the **My Computer** icon, and from the menu that appears, select **Properties**. The **System Properties** dialog box will appear.

3. Click the **Hardware** tab, and then click **[Driver signature]**. The **Driver Signing Options** dialog box will appear.

4. Return the "**File signature verification**" setting to the original setting (either "**Warn**" or "**Block**"), and click **[OK]**.

5. Click **[OK]**. The **System properties** dialog box will close.

Nest, you need to make the driver settings.
(-> **Settings** (p. 26)

■ **Windows Me/98 users**

1

With the UM-550 disconnected, start up Windows.

Disconnect all USB cables except for a USB keyboard and USB mouse (if used).

2

Exit all currently running software (applications).

Also close any open windows. If you are using virus checking or similar software, be sure to exit it as well.

3

Prepare the CD-ROM.

Insert the CD-ROM into the CD-ROM drive of your computer.

4

Open the "**Run...**" dialog box.

Click the Windows **Start** button.
From the menu that appears, select "**Run...**"

5

In the dialog box that appears, input the following into the "**Open**" field, and click **[OK]**.

UM-550 users:
D:\UM-550\WinMe_98\SETUP.EXE
UM-880 users:
D:\UM-880\WinMe_98\SETUP.EXE

*   *The drive name "D:" may be different for your system. Specify the drive name of your CD-ROM drive.*

6

The **SETUPINF** dialog box will appear.

You are now ready to install the driver.

*   *Do not click [OK] at this time.*
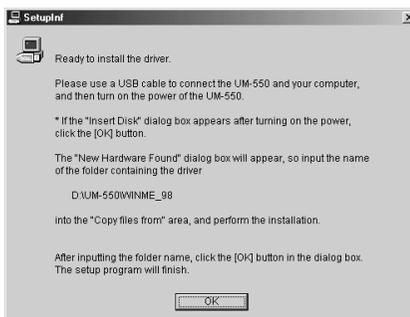
MEMO

In this manual, the location of folders and files is given in terms of the file path, using \ as the delimiter. For example, **WinMe_98\SETUPINF.EXE** indicates the **SETUPINF.EXE** file found in the **WinMe_98** folder.

MEMO

If a message of "**The driver is already installed**" appears, you can connect the UM-550 to your computer and use it.

24

7

Connect the UM-550.

1. With the power switch turned **OFF**, connect the **AC adaptor** to the **UM-550**. Alternatively, connect the **AC cable** to the **UM-880**.

2. Connect the **AC adaptor** or the **AC cable** to an electrical outlet.

3. Use the **USB cable** to connect the **UM-550** to your **computer**.

8

Set the UM-550's **power switch** to the **ON** position.

9

If you are using Windows 98, an **Insert Disk** dialog box will appear. Click **[OK]**.

Insert Disk

Please insert the disk labeled 'EDIROL UM-550 Driver Installation disk', and then click OK.

OK

NOTE

If you are using Windows 98 and the **Insert Disk** dialog box dose not appear, please read **The "Insert Disk" dialog box does not appear** (p. 56).

10 The **New Hardware Found** dialog box will appear.

Input the following into the "**Copy files from**" field, and click **[OK]**.

UM-550 users:
D:\UM-550\WinMe_98
UM-880 users:
D:\UM-880\WinMe_98

** The drive name "**D:**" may be different for your system. Specify the drive name of your CD-ROM drive.*

New Hardware Found

The file 'rddp0020.dat' was not found.

Windows needs the disk labeled 'EDIROL UM-550 Driver Installation disk' to continue. This disk may be provided by your computer or device manufacturer.

Copy files from:
D:\UM-550\WinMe_98

OK
Cancel
Skip File
Details...
Browse...

NOTE

If the **New Hardware Found** dialog box does not appear, re-install the driver using the same procedure as described in **The "Insert Disk" dialog box does not appear** (p. 56).

11 Once the driver has been installed, **New Hardware Found** dialog box will close.

In the **SETUPINF** dialog box, click **[OK]**. The **SETUPINF** dialog box will close.

Nest, you need to make the driver settings.
(-> **Settings** (p. 26)

If you were not able to install the UM-550 driver according to the procedure, or if you are unable to use the UM-550 even after installing the driver, you must delete the driver.
After deleting the driver, use the procedure described in "**Settings" (P.26)** to re-install the driver.For details on how to delete the driver, refer to the explanation provided in the on-line manual (**Readme_e.htm**) within the **CD-ROM**.

Settings

■ **Windows XP/2000/Me users**

1

Open **Control Panel**.

Click the Windows **Start** button, and from the menu that appears, select **Settings | Control Panel**.

Windows XP

Click the Windows **start** button, and from the menu that appears, select **Control Panel**.

2

Open the **Sounds and Multimedia Properties** dialog box (or in Windows XP, **Sounds and Audio Devices Properties**).

Windows 2000/Me

In **Control Panel**, double-click the **Sounds and Multimedia** icon to open the "**Sounds and Multimedia Properties**" dialog box.

Windows XP

In "**Pick a category**," click "**Sound, Speech, and Audio Devices**." Next, in "**or pick a Control Panel icon**," click the **sounds and Audio Devices** icon.

3

Click the **Audio** tab.

4

For **MIDI music playback**, click the ▼ located at the right of **[Preferred device]** (or in Windows XP, **[Default device]**), and select the following from the list that appears.

UM-550 users	1:EDIROL UM-550 MIDI 1
UM-880 users	1:EDIROL UM-880 MIDI 1

5

Click **OK** to complete the settings.

> The completes the installation of the UM-550/880 driver and related settings. If you are using Windows XP, proceed to "**Enabling background services" (P.28)**. For information on how to use the UM-550/880, read "**The functions of the UM-550/880" (P.36)**.
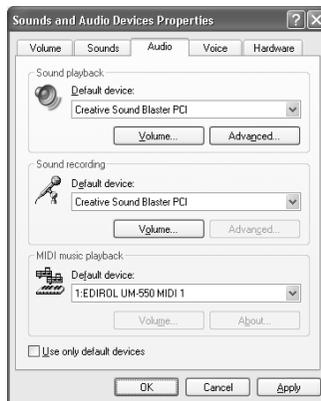
MEMO

Depending on how your system is set up, the **Sounds and Audio Devices** icon may be displayed directly in the **Control Panel** (the Classic display). In this case, double-click the **Sounds and Audio Devices** icon.

■ **Windows 98 users**

1

Open **Control Panel**.

Click the Windows **Start** button, and from the menu that appears, select **Settings | Control Panel**.

2

Open the **Multimedia Properties** dialog box.

In **Control Panel**, double-click the **Multimedia** icon to open the "**Multimedia Properties**" dialog box.

3

Click the **MIDI** tab.

4

Set "**MIDI output**."

Select **[Single instrument]**, and choose one of the following from the list that appears.

UM-550 users	1:EDIROL UM-550 MIDI 1
UM-880 users	1:EDIROL UM-880 MIDI 1

5
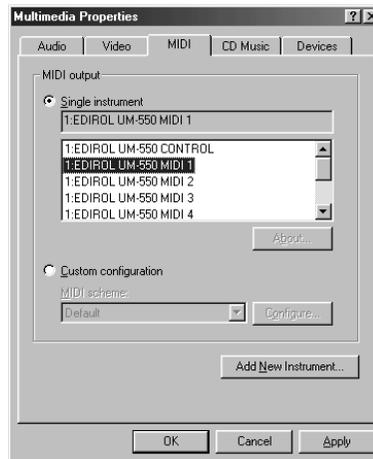
Click **OK** to complete the settings.

The completes the installation of the UM-550/880 driver and related settings. For information on how to use the UM-550/880, read "**The functions of the UM-550/880" (P.36)**.

Enabling background services

In Windows XP, perform these settings to make MIDI processing occur more smoothly. These settings are unavailable in Windows 2000/Me/98.

1 Click the Windows **start** button, and from the menu that appears, select **Control Panel**.

2 In "**Pick a category**," click "**Performance and Maintenance**."

3 In "**or pick a Control Panel icon**," click the **System** icon.

4 Click the **Advanced** tab.

5 At the right of the Performance field, click **[Settings]**. The Performance Options dialog box will appear.

6 Click the **Advanced** tab.

7 In the **Processor Scheduling** field, select "**Background services**," and click **[OK]**.

8 In the System Properties dialog box, click **[OK]**.

The **System Properties** dialog box will close.
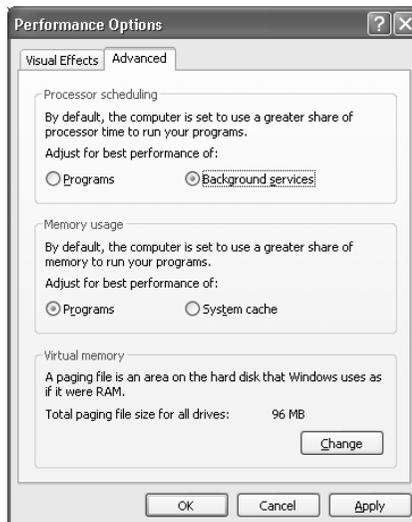
MEMO

Depending on how your system is set up, the **System** icon may be displayed directly in the **Control Panel** (the Classic display). In this case, double-click the **System** icon.

Performance Options

Visual Effects | Advanced

Processor scheduling

By default, the computer is set to use a greater share of processor time to run your programs.

Adjust for best performance of:

○ Programs   ⦿ Background services

Memory usage

By default, the computer is set to use a greater share of memory to run your programs.

Adjust for best performance of:

⦿ Programs   ○ System cache

Virtual memory

A paging file is an area on the hard disk that Windows uses as if it were RAM.

Total paging file size for all drives: 96 MB

[Change]

[OK]   [Cancel]   [Apply]

28

Installing & Setting Up the Driver (Macintosh)

Connecting your Macintosh

* To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.

1
Turn off the power of the Macintosh and all peripheral devices connected to the Macintosh.

2
With the power switch turned **OFF**, connect the **AC adaptor** to the **UM-550**. Alternatively, connect the **AC cable** to the **UM-880**.

3
Connect the **AC adaptor** or the **AC cable** to an electrical outlet.

4
Turn on the peripheral devices connected to the Macintosh, except for the UM-550/880. Then turn on the power of the Macintosh itself.

* Do not turn on the power of the UM-550/880 at this time.

If the power of the UM-550/880 is turned on, a message like the following will appear when the Macintosh is started up. Perform the steps described below as appropriate for the message that is displayed.

If the screen indicates:

"Driver required for USB device `unknown device' is not available. Search for driver on the Internet?"

-> click **[Cancel]**.

If the screen indicates:

"Software required for using device `unknown device' cannot be found. Please refer to the manual included with the device, and install the necessary software."

-> click **[OK]**.

<u>Use either OMS or FreeMIDI as the MIDI driver.</u>

** Either **OMS** or **FreeMIDI** must be installed in your Macintosh, as appropriate for the sequencer software you are using.*

■ **Installing the UM-550/880 driver (OMS)**

Use the following procedure to install the UM-550/880 driver.
Although the descriptions that follow are based on the UM-550, for installing software and making settings, UM-880 users can simply substitute the name "UM-880" wherever the name "UM-550" appears, except in places where a separate, specific reference to the UM-880 has been made.

The included **UM-550 OMS driver** is an add-on module for using the UM-550 with OMS. In order for you to use it, **OMS must already be installed on the hard disk from which you started up**.

If you would like to learn more about OMS, refer to **OMS_2.3_Mac.pdf** (online manual) in the **OMS2.3.8** folder within the OMS folder of the CD-ROM.

* Disconnect the UM-550/880 from the Macintosh before you perform the installation.

1
Exit all currently running software (applications).

If you are using a virus checker or similar software, be sure to exit this as well.

2
Prepare the CD-ROM.

Insert the CD-ROM into the CD-ROM drive.

3
Double-click the **UM-550 OMS Driver-E Installer** icon (found in the **UM-550 Driver E** of the CD-ROM) to start up the installer.

4
Verify the **installation location**, and click **[Install]**.

5
If a message like the following is displayed, click **[Continue]**.

The other currently running applications will exit, and installation will continue.

> This installation requires your computer to restart after installing this software. Click Continue to automatically quit all other running applications. Click Cancel to leave your disks untouched.
>
> [Cancel] [Continue]

6
A dialog box will indicate Installation completed.

Click **[Restart]** to restart your Macintosh.

7
Use the **USB cable** to connect the **UM-550** to your **computer**.

8
Set the UM-550's power switch to the ON position.

MEMO

OMS can be found in the **OMS 2.3.8** folder within the OMS folder of the CD-ROM.

MEMO

You will need the Adobe Acrobat Reader in order to view **OMS_2.3_Mac.pdf**. The latest version of Adobe Acrobat Reader can be downloaded from the Adobe website. http://www.adobe.com (This URL may change without notice.)

30

OMS settings

1
From the CD-ROM, drag the **Driver-OMS Driver-OMS Setting** folder to the hard disk of your Macintosh to copy it.

OMS Setting

2
In the **Opcode-OMS Application** folder where you installed OMS, double-click **OMS Setup** to start it up.

OMS Setup

3
If a dialog box like the one shown here appears, click **[Turn It Off]**. A confirmation dialog box will then appear, so click **[OK]**.

4
The Create New Setup dialog box will appear.

Click **[Cancel]**. If you accidentally clicked **[OK]**, click **[Cancel]** in the next screen.

5
Choose "**Open**" from the File menu.

From the **OMS Settings** folder that you copied in **step 1**, select the **SD-20 USB** file, and click **[Open]**.

A screen like the one shown here will appear.
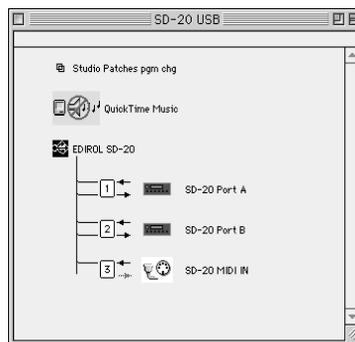
6

From the **Edit** menu, select **OMS MIDI Setup**.

In the **OMS MIDI Setup** dialog box that appears, check **Run MIDI in background**, and click **[OK]**.

7
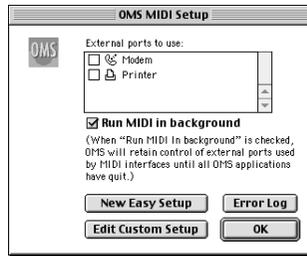
From the **File** menu, choose **Make Current**.

If you are unable to select **Make Current**, it has already been applied, and you may continue to the next step.
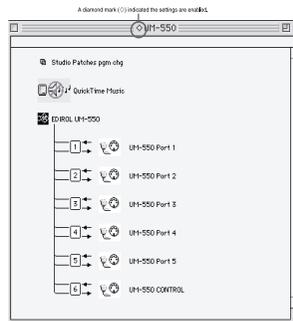
8

Verify that MIDI transmission and reception can be performed correctly. From the **Studio** menu, choose **Test Studio**.

9

When you move the mouse cursor near the sound generator icon, the cursor will change to a ♪ shape.

Click on the sound generator icons that are encircled in the following illustration. If sound is heard from the UM-550, the settings are correct. If MIDI is not being transmitted, the Macintosh will produce an alert sound.

MEMO

For details on the ports, refer to p. 38.

32
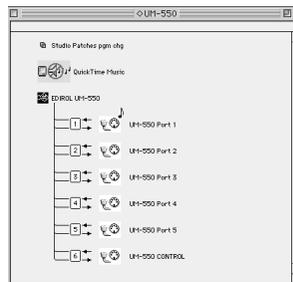
10 Exit **OMS Setup**.

From the **File** menu, choose **[Exit]**. If the **AppleTalk confirmation** dialog box appears, click **[OK]** to close the dialog box.

This completes connections for the UM-550 and Macintosh, and installation of the MIDI driver.

—

■ **Installing the UM-550/880 driver (FreeMIDI)**

Use the following procedure to install the UM-550/880 driver.
Although the descriptions that follow are based on the UM-550, for installing software and making settings, UM-880 users can simply substitute the name "UM-880" wherever the name "UM-550" appears, except in places where a separate, specific reference to the UM-880 has been made.
The included **UM-550 FreeMIDI driver** is an add-on module for using the UM-550 with FreeMIDI. In order to use it, **FreeMIDI must be installed on the hard disk from which you started up**.

  * Disconnect the UM-550/880 *from the Macintosh before beginning the installation.*

1
Exit all currently running software (applications).

If you are using a virus checker or similar software, be sure to exit this as well.

2
Prepare the CD-ROM.
Insert the CD-ROM into the CD-ROM drive.

3
Double-click the **UM-550 FM Driver-E Installer** icon (found in the **UM-550 Driver E** folder of the CD-ROM) to start up the installer.

4
Verify the **installation location**, and click **[Install]**.

5
If a message like the following is displayed, click **[Continue]**.

The other currently running applications will exit, and installation will continue.

> This installation requires your computer to restart after installing this software. Click Continue to automatically quit all other running applications. Click Cancel to leave your disks untouched.
>
> [Cancel] [Continue]

6
A dialog box will indicate Installation completed. Click **[Restart]** to restart your Macintosh.

7
Use the **USB cable** to connect the **UM-550** to your **computer**.

8
Switch ON the UM-550's Power switch.

34

FreeMIDI settings

1 From the CD-ROM, copy the **UM-550 Driver E - FreeMIDI Settings** folder onto the hard disk of your Macintosh.

2 Open the **FreeMIDI Applications** folder from the location into which you installed FreeMIDI, and double-click the **FreeMIDI Setup** icon to start it up.

3 When "**OMS is installed on this computer...**" appears, click **[FreeMIDI]**.

4 The first time the software is started up, a dialog box saying "**Welcome to FreeMIDI!**" will appear. Click **[Continue]**.

5 When the **FreeMIDI Preferences** dialog box appears, click **[Cancel]**.

6 When the **About Quick Setup** dialog box appears, click **[Cancel]**.

7 From the **File** menu, choose **Open**.

8 Select **UM-550** from the **FreeMIDI Setting** folder you copied in **step 1**, and click **[Open]**.

9 Verify that MIDI transmission and reception occur correctly.

From the **MIDI** menu, choose **Check Connections**.

10 The mouse cursor will change to the shape of a note. Click on the icon of each port in the diagram at right.

If you hear sound, MIDI messages are being sent from the Macintosh to the UM-550.
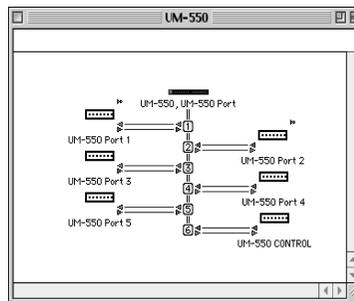
11 Once again choose the **MIDI** menu command **Check Connections** to end the test.

12 From the **File** menu, choose Quit to exit **FreeMIDI Setup**.
This completes connections for the UM-550 and Macintosh, and installation of the MIDI driver. Now, MIDI data can be input and output (recorded and played).

MEMO
For details on the ports, refer to p. 38.

MEMO
If the sound module connected to the UM-550 does not produce sound, refer to "**No sound (**p. 60).**"

The functions of the UM-550/880

Displaying the MIDI inputs/outputs (MIDI INDI)

Press the **[MIDI INDI]** button to enter **MIDI INDI mode**.
In MIDI INDI mode, the indicators of the **INPUT** and **OUTPUT** buttons show the input/output status of the MIDI data. You can also check the INPUTs that are patched to the MIDI OUTs.

Patching
You can specify which INPUT will be assigned to which OUTPUT.
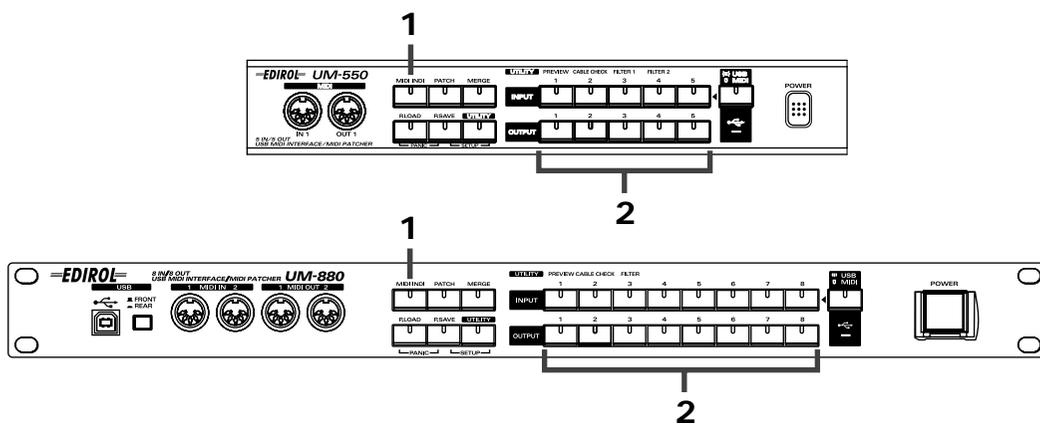
1

Press the **[MIDI INDI]** button.

If MIDI data is being input and output, the corresponding **INPUT/OUTPUT** indicators will blink.

2

When you press an **OUTPUT** button, the **INPUT** indicator that is patched to it will light.

You can repeat **step 2** to view the patching of each **INPUT/OUTPUT**.

[Example 1] If INPUT [1] lights when you press the OUTPUT [1] button
-> MIDI IN 1 is patched to MIDI OUT 1.

[Example 2] If the INPUT [1] and USB/MIDI buttons light when you press the OUTPUT [1] button
-> USB port 1 is patched to MIDI OUT 1.

[Example 3] If the INPUT [1]/INPUT [1] + USB/MIDI buttons light alternately when you press the OUTPUT [1] button
-> OUTPUT 1 is the merge port output destination; the two inputs MIDI IN 1 and USB port 1 are being merged and sent to OUTPUT 1.

** If an OUTPUT is a merge port output destination, the **[MERGE]** button will blink while you are pressing that **OUTPUT** button. For details on the Merge port, refer to "**Merging multiple MIDI inputs for output (MERGE)**" (P.39).*

Specifying the MIDI input/output destinations (PATCH)

Press the **[PATCH]** button to enter **Patch mode**.

In Patch mode you can make patching settings for the UM-550/880.

If you use Patch mode to make settings for an OUTPUT for which you previously made settings in Merge mode, the Merge mode settings will be defeated.
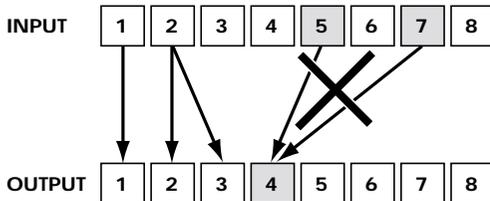
*In Patch mode it is not possible to assign multiple INPUT ports to a single OUTPUT port. If you want to do so, refer to "**Merging multiple MIDI inputs for output (MERGE)**" (P.39).*
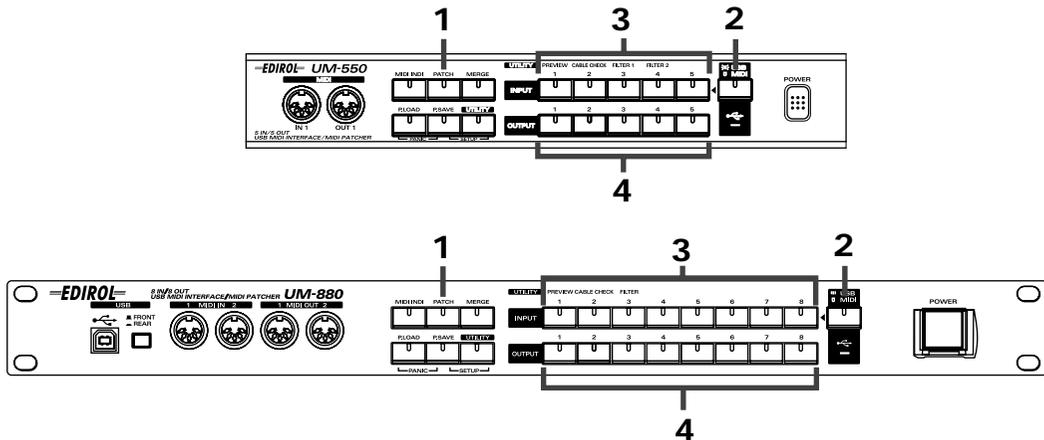
1

Press the **[PATCH]** button.

2

If the UM-550/880 is connected to a computer, switch the USB/MIDI setting as desired.

If you want to specify input/output destinations for the USB ports
-> Press the **[USB/MIDI]** button so its indicator is lighted.

If you want to specify input/output destinations for the MIDI IN connectors
-> Press the **[USB/MIDI]** button so its indicator goes out.

3

Press the **INPUT** button to select an input-source **INPUT port**.

The currently patched **OUTPUT** indicator(s) will light.

4

Press an **OUTPUT** button to specify the desired MIDI OUT(s).

You can repeat **steps 2–4** to make multiple patchings.

NOTE Do not change the connections while MIDI messages are being input and output. Doing so may cause a connected MIDI device to malfunction.

[Example 1] To patch MIDI IN 1 to MIDI OUT 2 + MIDI OUT 3

-> Press **INPUT [1]**, then press **OUTPUT [2]** and **[OUTPUT 3]**, in that order.

[Example 2] To patch USB port 1 to MIDI OUT 4 + MIDI OUT 5

-> Press the [USB/MIDI] button so its indicator is lighted, and then press **INPUT [1]**, **OUTPUT [4]**, and **OUTPUT [5]**, in that order.

The names of the ports correspond to the UM-550/880's MIDI connectors as follows.

* *UM-550/880 CONTROL is used to transmit and receive data between the computer and the UM-550/880.*

UM-550/880 CONTROL	→	UM-550/880 SETTINGS
UM-550/880 MIDI 1	→	MIDI OUT 1
UM-550/880 MIDI 2	→	MIDI OUT 2
UM-550/880 MIDI 3	→ MIDI PATCHER (HARDWARE) →	MIDI OUT 3
UM-550/880 MIDI 4	→	MIDI OUT 4
UM-550/880 MIDI 5	→	MIDI OUT 5
UM-880 MIDI 6	→	MIDI OUT 6
UM-880 MIDI 7	→	MIDI OUT 7
UM-880 MIDI 8	→	MIDI OUT 8
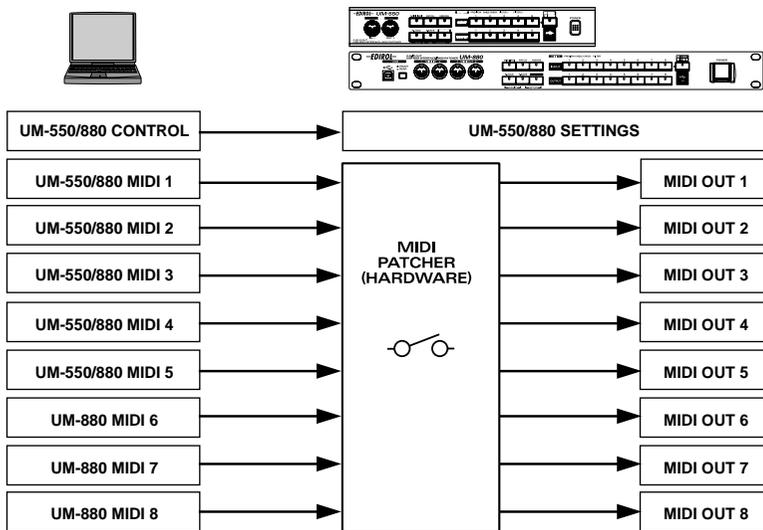
You can switch output destinations by switching patches on the UM-550/880 itself. For details, refer to "**Specifying the MIDI input/output destinations (PATCH)**" (P.37)

UM-550/880 CONTROL	←	UM-550/880 SETTINGS
UM-550/880 MIDI 1	←	MIDI IN1
UM-550/880 MIDI 2	←	MIDI IN 2
UM-550/880 MIDI 3	←	MIDI IN 3
UM-550/880 MIDI 4	←	MIDI IN 4
UM-550/880 MIDI 5	←	MIDI IN 5
UM-880 MIDI 6	←	MIDI IN 6
UM-880 MIDI 7	←	MIDI IN 7
UM-880 MIDI 8	←	MIDI IN 8
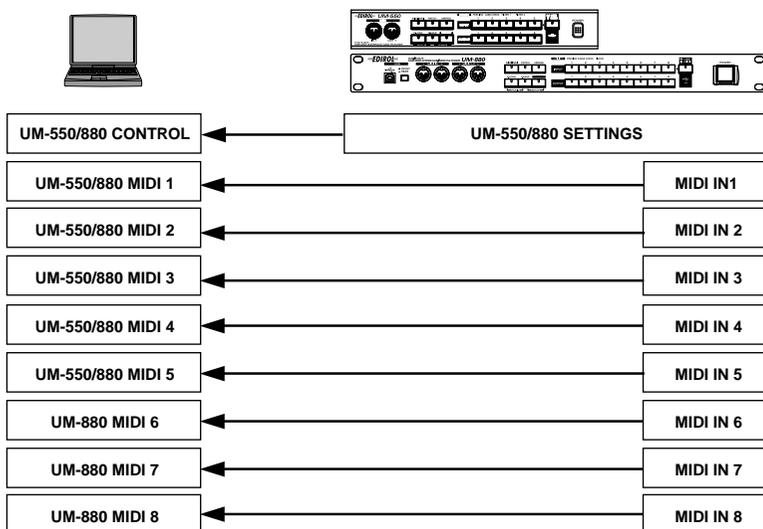
It is not possible to switch inputs.

Merging multiple MIDI inputs for output (MERGE)

Press the **[MERGE]** button to enter **Merge mode**.

In Merge mode, you can send data from multiple ports to the Merge port (a port that mixes two or more inputs), and output this data to one or more ports.

If you use Merge mode to make settings for an OUTPUT for which you previously made settings in Patch mode, the Patch mode settings will be defeated.

* *If data losses occur in the Merge port output destination, it is possible that the total amount of data being sent to the Merge port is exceeding the MIDI specification (31.25 kbps). You will need to ensure that the total amount does not exceed the specification, either by reducing the number of input ports that are being merged, or by reducing the amount of MIDI data that is being transmitted.*
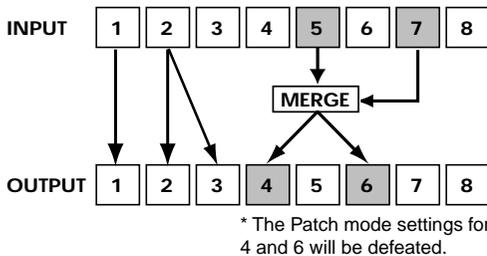
*There is only one Merge port.

*The total amount of data for the Merge port may not exceed 31.25 kbps. If the MIDI specification is exceeded, an error will be indicated. "**UM-550/880 error message list**" (P.65)

* The Patch mode settings for 4 and 6 will be defeated.
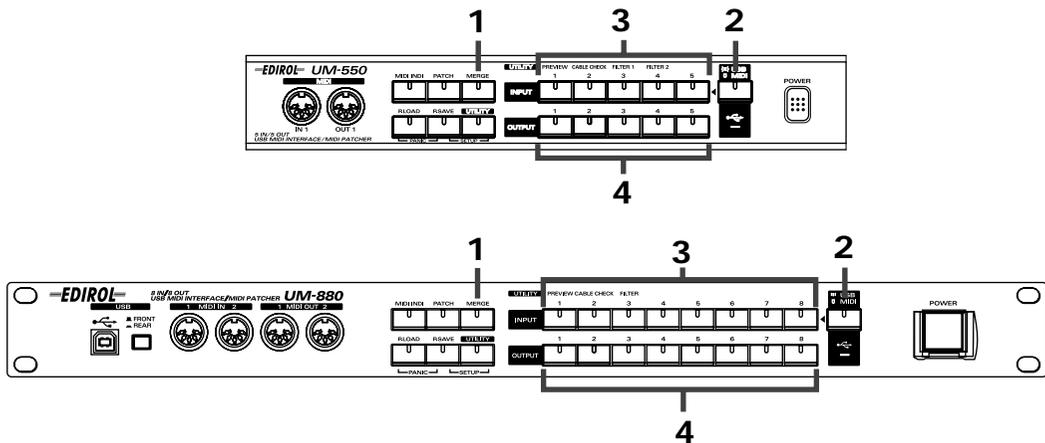
1

Press the **[MERGE]** button.

2

If the UM-550/880 is connected to a computer, switch the USB/MIDI setting as desired.

If you want to display the input/output status of the USB ports

-> Press the **[USB/MIDI]** button so its indicator is lighted.

If you want to display the input/output status of the MIDI IN connectors

-> Press the **[USB/MIDI]** button so its indicator goes out.

3

Press an **INPUT** button to select an input port that you want to send to the Merge port.

The **INPUT** indicator will light. You may select more than one INPUT (input port).

_4_

Press an **OUTPUT** button to select an output port.

The **OUTPUT** indicator will light. You may select more than one OUTPUT (output port).

NOTE Do not change the connections while MIDI messages are being input and output. Doing so may cause a connected MIDI device to malfunction.

_5_

When you are finished, press the **[MIDI INDI]** or **[PATCH]** button.

Saving a patch (P.SAVE)

Press the **[P.SAVE]** button to enter **Patch Save mode**.

In Patch Save mode you can store the connection state (patching) of the UM-550/880 into memory. On the UM-550 you can save five different patches, and on the UM-880 you can save eight different patches.
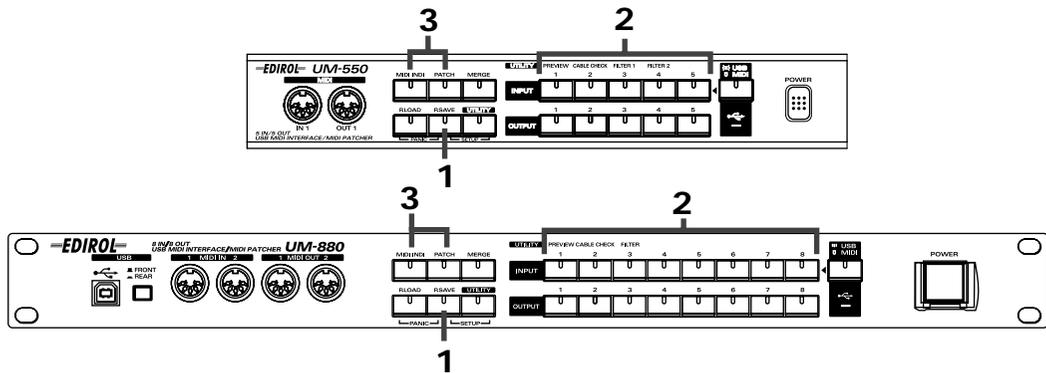
_1_

Press the **[P.SAVE]** button.

The button's indicator will light.

_2_

Press an **INPUT** button to select the save-destination memory number.

The button will blink, and the current PATCH and MERGE settings will be saved.

_3_

When you are finished, press the **[MIDI INDI]** or **[PATCH]** button.

Recalling a patch (P.LOAD)

Press the **[P.LOAD]** button to enter **Patch Load mode**.

In Patch Load mode you can recall/select the patches that you saved.
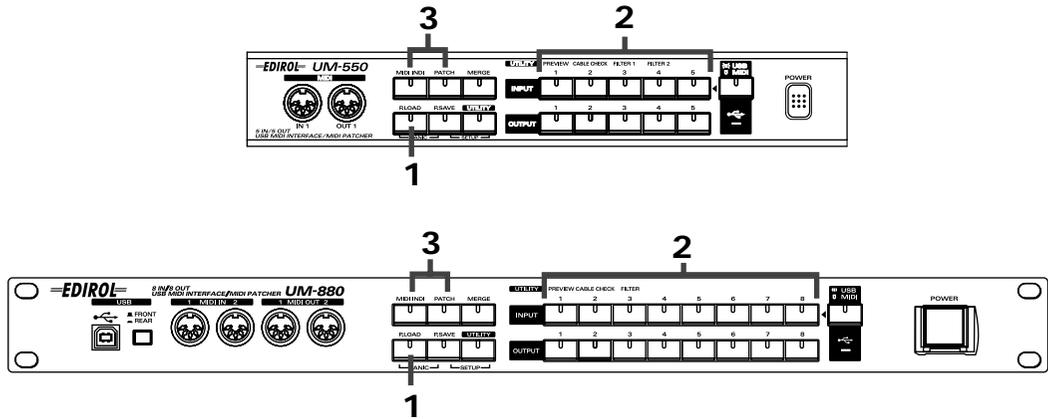
1

Press the **[P.LOAD]** button.

The button's indicator will light.

2

Press an **INPUT** button to select the memory number that you want to recall.

3

After selecting a memory number, press **[MIDI INDI]** or **[PATCH]**.

NOTE Do not change the connections while MIDI messages are being input and output. Doing so may cause a connected MIDI device to malfunction.

Utility mode

Press the **[UTILITY]** button to enter **Utility mode**.

In Utility mode you can perform the following operations.
- Check MIDI OUT (MIDI OUT PREVIEW) .... (p. 42)
- MIDI CABLE CHECK .... (p. 43)
- MIDI EVENT FILTER.. (p. 44)

** In Utility mode, no MIDI data is transmitted or received. To prevent malfunction, the transmission/ reception of MIDI data still continues at the point where you press the **[UTILITY]** button.*

■ Check MIDI OUT (MIDI OUT PREVIEW)

This lets you transmit MIDI data from the UM-550/880 to see whether the receiving MIDI device responds correctly.
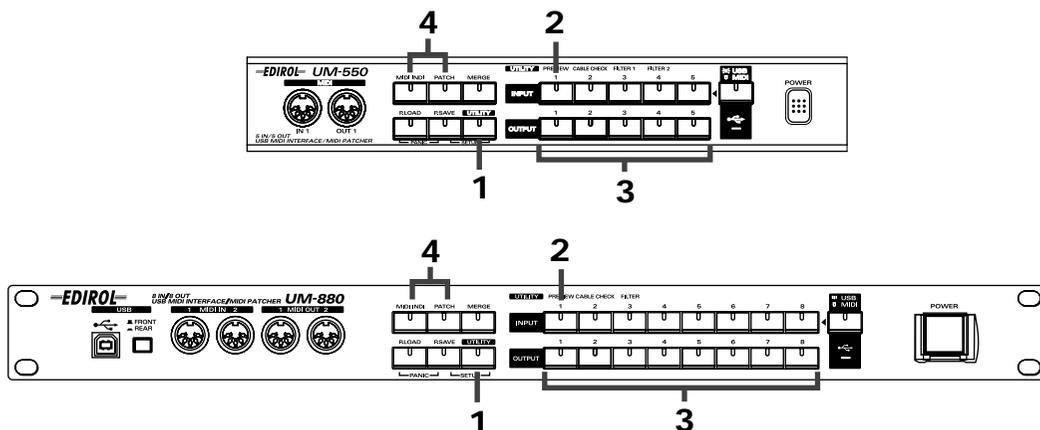
1

Press the **[UTILITY]** button.

The button's indicator will light.

2

Press the **INPUT [1]** button.

The button's indicator will light.

3

Press one of the **OUTPUT** buttons.

A note-on (A4, note number 69) will be transmitted to the port whose button you pressed. If a MIDI sound module is connected to this port, the note will sound.

If the sound module does not produce sound, it is possible that the connections are incorrect. Check the MIDI cable connections and the settings of your sound module.

4

When you are finished checking, press the **[MIDI INDI]** or **[PATCH]** button.

■ MIDI CABLE CHECK

This lets you use the UM-550/880 to test for broken MIDI cables. If a problem occurs with MIDI data transmission or reception, you can use this to check whether the MIDI cable is broken.

1
Press the **[UTILITY]** button.
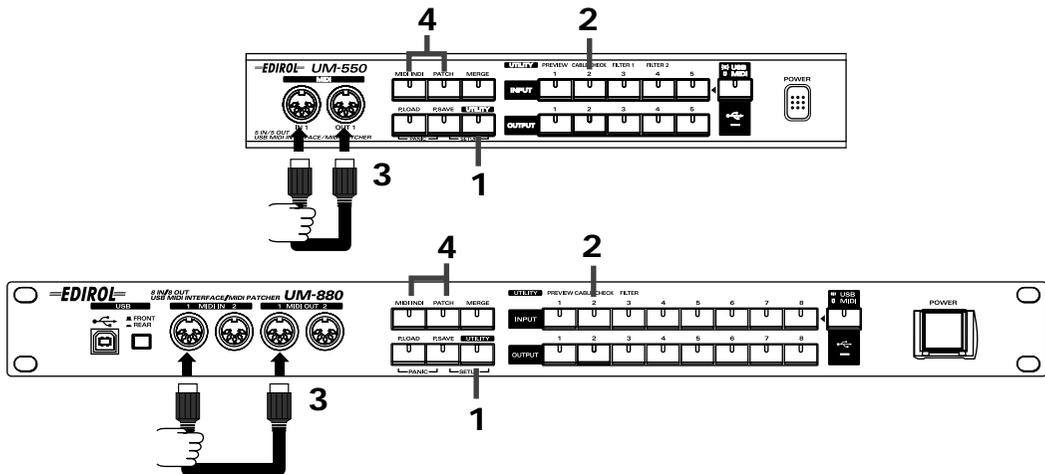
The button's indicator will light.

2
Press **INPUT [2]**.

The button's indicator will light.

3
Connect the MIDI cable to be tested between the **MIDI IN 1** and **MIDI OUT 1** connectors of the UM-550/880.

If the OUTPUT [1] indicator is lit

-> The cable is transmitting/receiving MIDI data normally.

If the OUTPUT [1] indicator is blinking

-> The cable is broken. Please use a different MIDI cable.

UM-880 On the UM-880 you can connect a MIDI cable between **MIDI IN 2** and **MIDI OUT 2** to simultaneously check another cable. In this case, the **OUTPUT [2]** indicator will blink or be lit.

4
When you are finished testing MIDI cables, press the **[MIDI INDI]** or **[PATCH]** button.

■ MIDI EVENT FILTER

When using the Merge function to send multiple streams of MIDI data to a port, you can apply filtering to unwanted data at the Merge port so that specific types of MIDI message are not transmitted.

*   *The MIDI event filter can be used only for the Merge port.*

1
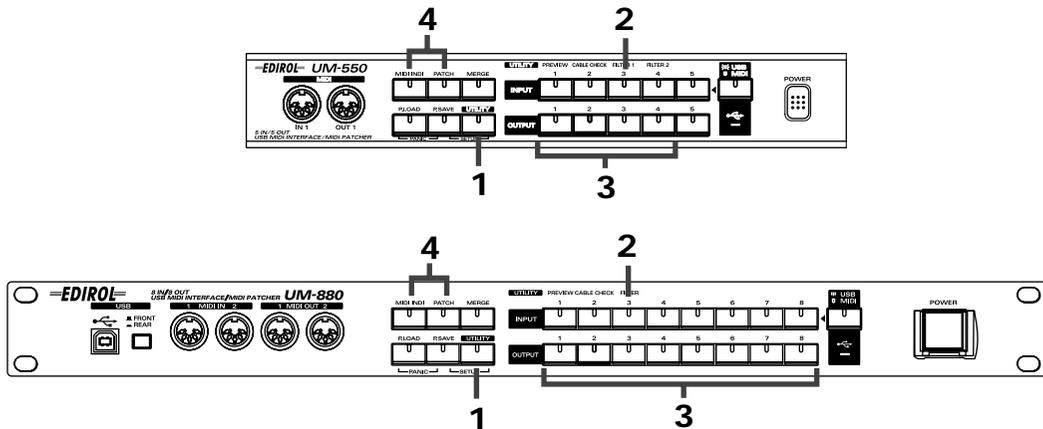
Press the **[UTILITY]** button.
The button's indicator will light.

2

`UM-550` Press the **INPUT [3]** or **[4]** button.

`UM-880` Press the **INPUT [3]** button.
The button's indicator will light.

3

`UM-550` Use the **OUTPUT [1]–[4]** buttons to select the MIDI messages that you do not want to transmit.

MIDI FILTER 1

Button	MIDI message
OUTPUT 1	NOTE ON/NOTE OFF
OUTPUT 2	POLYPHONIC KEY PRESSURE (Ax)
OUTPUT 3	CONTROL CHANGE (Bx)
OUTPUT 4	PROGRAM CHANGE (Cx)

MIDI FILTER 2

Button	MIDI message
OUTPUT 1	CHANNEL PRESSURE (Dx)
OUTPUT 2	PITCH BEND CHANGE (Ex)
OUTPUT 3	SYSTEM REALTIME/SYSTEM COMMON
OUTPUT 4	SYSTEM EXCLUSIVE

`UM-880` Use the **OUTPUT** buttons to select the MIDI messages that you do not want to transmit and receive.

MIDI FILTER

Button	MIDI message
OUTPUT 1	NOTE ON/NOTE OFF
OUTPUT 2	POLYPHONIC KEY PRESSURE (Ax)
OUTPUT 3	CONTROL CHANGE (Bx)
OUTPUT 4	PROGRAM CHANGE (Cx)
OUTPUT 5	CHANNEL PRESSURE (Dx)
OUTPUT 6	PITCH BEND CHANGE (Ex)
OUTPUT 7	SYSTEM REALTIME/SYSTEM COMMON
OUTPUT 8	SYSTEM EXCLUSIVE

MIDI messages corresponding to the lit buttons will not be transmitted.

4

When you are finished making settings, press the **[MIDI INDI]** or **[PATCH]** button.

44

Setup mode (P.SAVE+UTILITY)

Simultaneously press the **[P.SAVE]** button and **[UTILITY]** button to enter Setup mode.
In Setup mode you can edit the settings of the UM-550/880 itself.

*   *In Setup mode, not all MIDI data is transmitted/received.*

■ Switching USB Tx ON/OFF UM-880

*   *This function exists only on the UM-880.*

    You can specify whether the input from each MIDI IN connector of the UM-880 will be sent to the USB port.
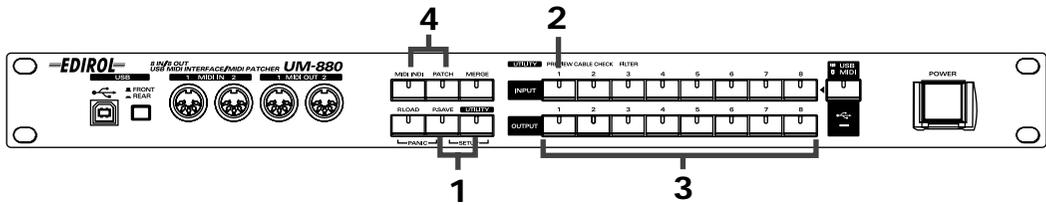
1

Put the UM-880 in Setup mode.

Simultaneously press the **[P.SAVE]** button and **[UTILITY]** button. The indicators of both buttons will light.

2

Press the **INPUT [1]** button.

The button's indicator will light.
Of the **OUTPUT [1]–[8]** buttons, the indicators will light for the port numbers that are set to transmit data to the USB port.

3

Press an **OUTPUT** button to specify whether data will be sent to the USB port.

To send data to the USB port
   -> Press the **OUTPUT button** so its indicator is lighted.
To not send data to the USB port
   -> Press the **OUTPUT button** so its indicator goes out.

[Example] If you don't want data from MIDI IN 1 to be sent to USB port 1
   -> To turn off transmission to USB port 1, press the **OUTPUT [1]** button so its indicator goes out.

4

When you are finished making settings, press the **[MIDI INDI]** or **[PATCH]** button.

■ Transmitting the current patch (Bulk Dump transmission)

Here's how you can transmit the **current patch** as bulk dump data, and record the settings on a sequencer.

Current patch

This is the patching that is currently specified on the UM-550/880.

Bulk dumps are transmitted using the Control Port (UM-550 CONTROL/UM-880 CONTROL). If you want to transmit/receive a bulk dump from a MIDI IN/OUT connector, make settings as described in "**Specifying the Control Port**" (P.48).

1

Put the UM-550/880 in Setup mode.

Simultaneously press the **[P.SAVE]** button and **[UTILITY]** button. The indicators of both buttons will light.

2

Start recording on your sequencer.

* For details on how to record on your sequencer, refer to the owner's manual for your sequencer.

3
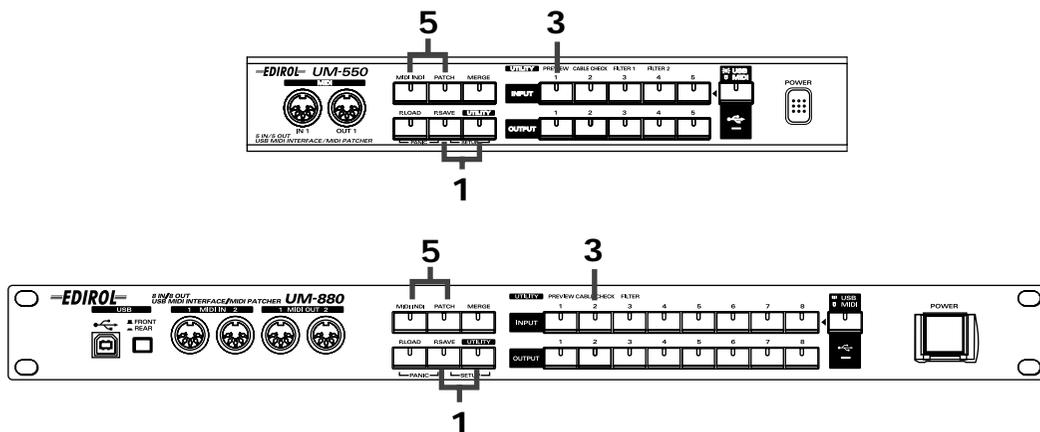
UM-550 Press the **INPUT [1]** button, and then press the **OUTPUT [1]** button.

UM-880 Press the **INPUT [2]** button.

The currently specified patching (the current patch) will be output as a bulk dump, and the **OUTPUT** indicators will light. When the **OUTPUT** indicators finish moving from left to right, bulk dump transmission has been completed.

4

When bulk dump transmission has been completed, stop recording on your sequencer.

5

Press the **[MIDI INDI]** or **[PATCH]** button.

■ Transmitting a bulk dump of all patches

Here's how you can transmit all patches stored on the UM-550/880 (except the current patch) as bulk dump data, and record the settings on a sequencer.

Bulk dumps are transmitted using the Control Port (UM-550 CONTROL/UM-880 CONTROL). If you want to transmit/receive a bulk dump from a MIDI IN/OUT connector, make settings as described in "**Specifying the Control Port"** (P.48).

1

Put the UM-550/880 in Setup mode.

Simultaneously press the **[P.SAVE]** button and **[UTILITY]** button. The indicators of both buttons will light.

2

Start recording on your sequencer.

 * *For details on how to record on your sequencer, refer to the owner's manual for your sequencer.*

3
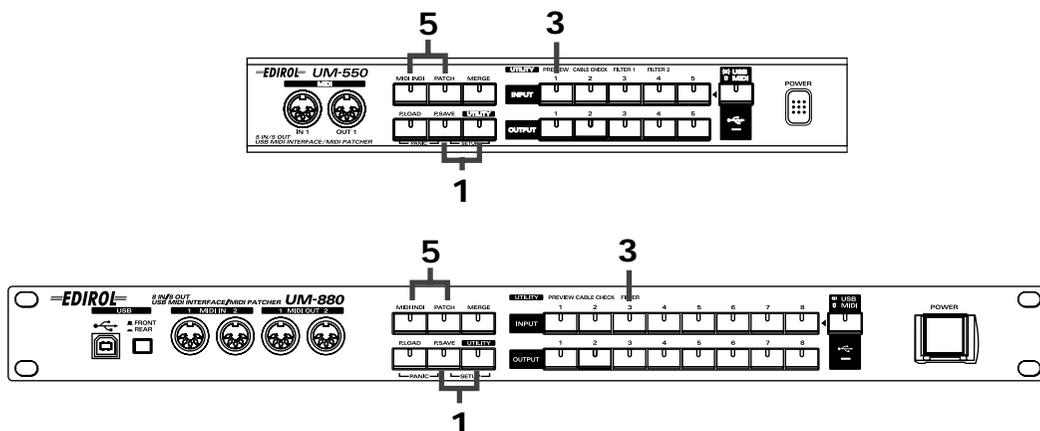
UM-550   Press the **INPUT [1]** button, and then press the **OUTPUT [5]** button.

UM-880   Press the **INPUT [3]** button.

All patches stored in the UM-550/880 (except the current patch) will be output as a bulk dump. When the **OUTPUT** indicators finish moving from left to right, bulk dump transmission has been completed.

4

When bulk dump transmission has been completed, stop recording on your sequencer.

5

Press the **[MIDI INDI]** or **[PATCH]** button.

■ Specifying the Control Port

If you want to use a MIDI IN/OUT connector as the Control Port, use the following procedure to specify the Control Port.

Control Port

This is the port that is used to control the internal settings of the UM-550/880.

When a bulk dump or program change is received at this port, the UM-550/880 patches or settings will change. This port is also used when transmitting a bulk dump to a sequencer or other device.

If the UM-550/880 is connected via USB, UM-550 CONTROL/UM-880 CONTROL will be the Control Port. If you want to use a MIDI IN/OUT connector as the control port, use the following procedure to make the settings.
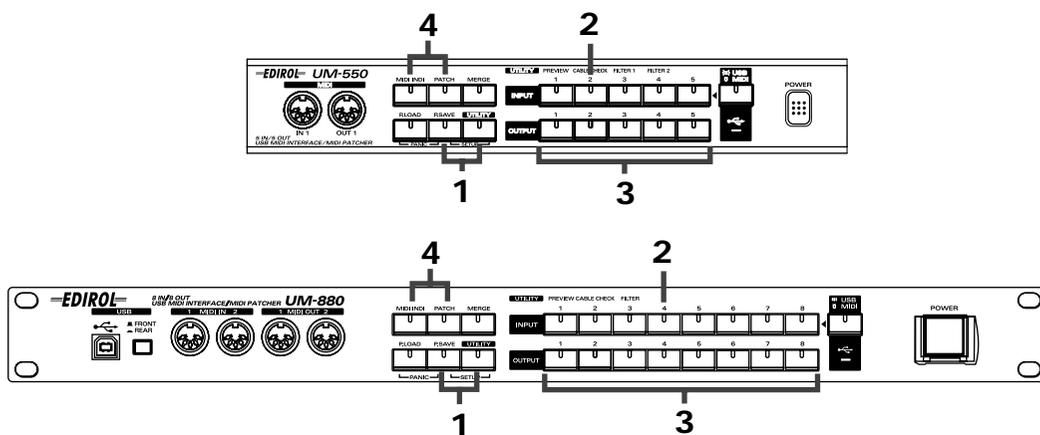
1

Put the UM-550/880 in Setup mode.

Simultaneously press the **[P.SAVE]** button and **[UTILITY]** button. The indicators of both buttons will light.

2

UM-550 Press the **INPUT [2]** button.

UM-880 Press the **INPUT [4]** button.

The button's indicator will light.

3

Select the desired Control Port.

Press an **OUTPUT** button. The button's indicator will light, and that port will be selected as the Control Port.

* *If you press that **OUTPUT** button once again, the specified Control Port will be cancelled.*

* *It is not possible to select more than one Control Port.*

4

When you have finished making settings, press the **[MIDI INDI]** or **[PATCH]** button.

■ Specifying the startup mode

Here's how you can specify the type of driver used by the UM-550/880, and how Patch mode will be selected.
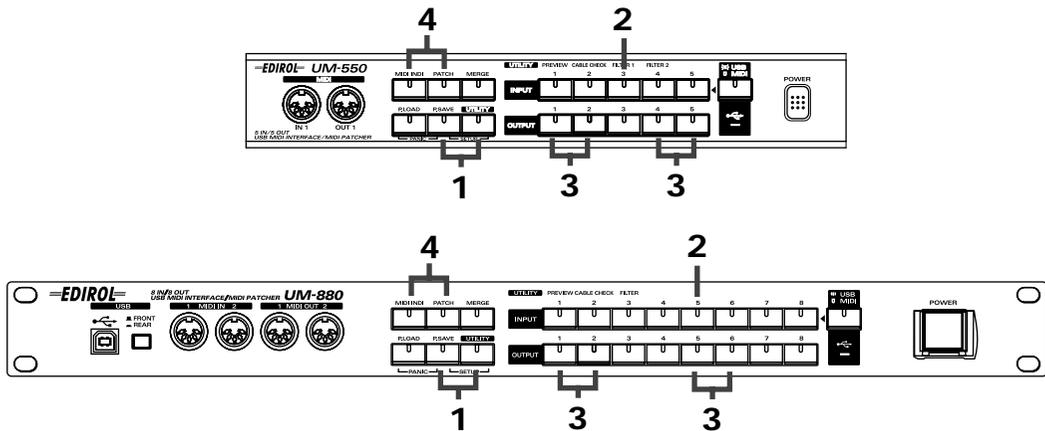
1
Put the UM-550/880 in Setup mode.

Simultaneously press the **[P.SAVE]** button and **[UTILITY]** button. The indicators of both buttons will light.

2
UM-550 Press the **INPUT [3]** button.

The button's indicator will light.
The indicators of the **OUTPUT [1] [2] [4] [5]** buttons will light dimly.

UM-880 Press the **INPUT [5]** button.

The button's indicator will light.
The indicators of the **OUTPUT [1] [2] [5] [6]** buttons will light dimly.

3
Select the desired startup mode.

To change the type of driver that will be used

Press one of the following buttons.

Button	Mode	
OUTPUT 1	EDIROL original driver mode	FPT technology will be used to perform high-speed MIDI transfer. We recommend that you normally use this mode.
OUTPUT 2	Generic driver mode	Use the standard MIDI driver provided by your operating system.

* *FPT = Fast Processing Technology of MIDI Transmission*:

This optimizes MIDI data processing by making efficient use of the USB bandwidth according to the amount of MIDI data being transferred.

To change the startup mode for the UM-550/880

Press one of the following buttons.

UM-550

Button	Mode	
OUTPUT 4	RESUME mode	Remember the previous patch mode at start-up
OUTPUT 5	NOT RESUME mode	Start up as a free-standing 5-in/5-out USB MIDI interface

UM-880

Button	Mode	
OUTPUT 5	RESUME mode	Remember the previous patch mode at start-up
OUTPUT 8	NOT RESUME mode	Start up as a free-standing 8-in/8-out USB MIDI interface

* *If you select **NOT RESUME**, the patch settings will be reset when the UM-550/880 starts up. Subsequently, you will be able to operate the patch functionality, but your settings will be reset when the UM-550/880 is restarted.*

4

When you have finished making settings, press the **[MIDI INDI]** or **[PATCH]** button.

* *These settings will take effect the next time the UM-550/880 is started up.*

■ Initializing the current patch

Here's how to initialize the current patch.
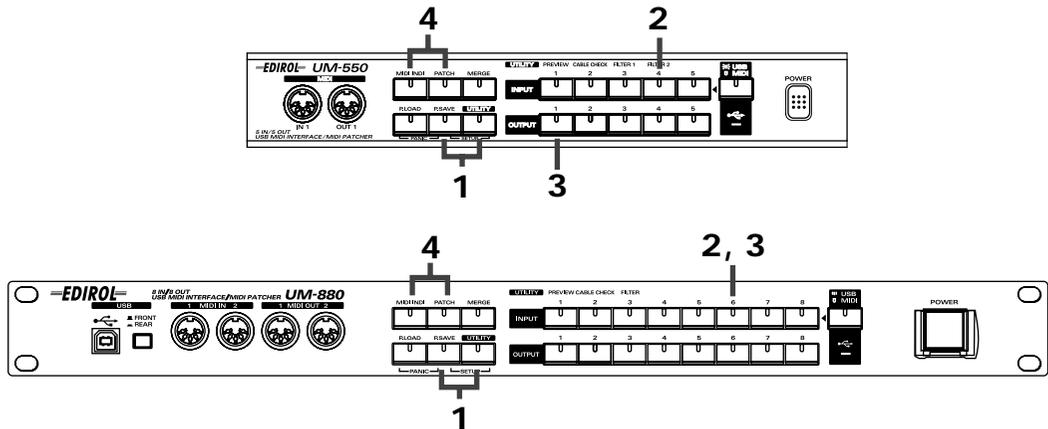
1

Put the UM-550/880 in Setup mode.

Simultaneously press the **[P.SAVE]** button and **[UTILITY]** button. The indicators of both buttons will light.

2

UM-550 Press the **INPUT [4]** button.

UM-880 Press the **INPUT [6]** button.
The button's indicator will light.

3

Initialize the current patch.

UM-550 Press the **OUTPUT [1]** button.

UM-880 Press the **INPUT [6]** button once again.

4

Once the initialization is finished, press the **[MIDI INDI]** or **[PATCH]** button.

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■ Initializing all patches

Here's to initialize all patches stored in the UM-550/880 (except for the current patch).
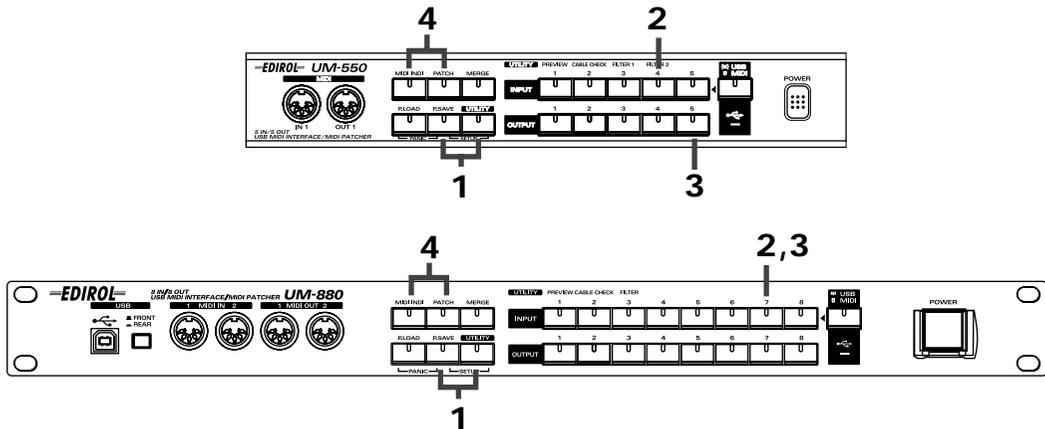
1

Put the UM-550/880 in Setup mode.

Simultaneously press the **[P.SAVE]** button and **[UTILITY]** button. The indicators of both buttons will light.

2

UM-550 Press the **INPUT [4]** button.

UM-880 Press the **INPUT [7]** button.
The button's indicator will light.

3

Initialize all patches stored in the UM-550/880.

UM-550 Press the **OUTPUT [5]** button.

UM-880 Press the **INPUT [7]** button once again.

4

Once the initialization is finished, press the **[MIDI INDI]** or **[PATCH]** button.

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■ Restoring the UM-550/880 to the initial settings (FACTORY PRESET)

Here's how to restore the UM-550/880 to its factory-set condition.
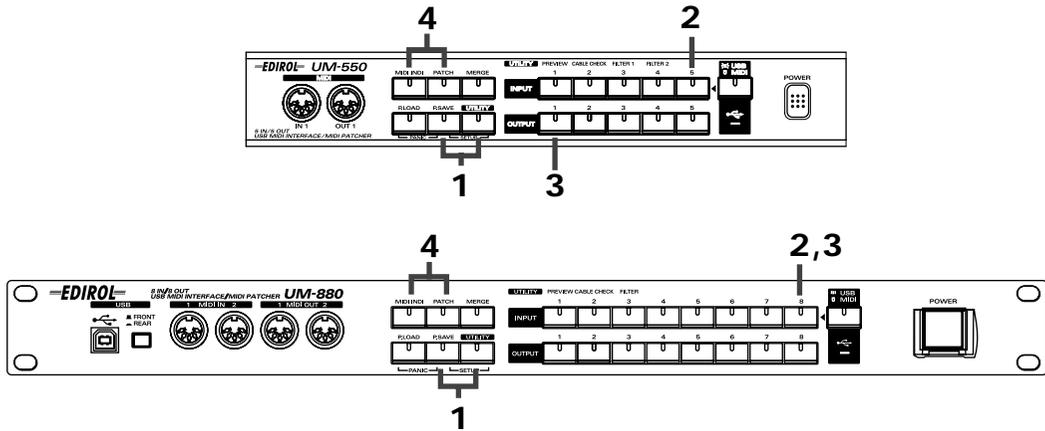
1

Put the UM-550/880 in Setup mode.

Simultaneously press the **[P.SAVE]** button and **[UTILITY]** button. The indicators of both buttons will light.

2

UM-550 Press the **INPUT [5]** button.

UM-880 Press the **INPUT [8]** button.
The button's indicator will light.

3

Initialize the UM-550/880.

UM-550 Press the **OUTPUT [1]** button.

UM-880 Press the **INPUT [8]** button once again.
After initialization, the UM-550/880 will be set as follows:

Driver	EDIROL original driver mode
Current patch	Initialized
Control port	None
Merge port	None
USB Tx ON/OFF	All ON

** For details on USB Tx ON/OFF, refer to "**Switching USB Tx ON/OFF**" (P.45).*

4

Once the initialization is finished, press the **[MIDI INDI]** or **[PATCH]** button.

Panic (P.LOAD + P.SAVE)

If while you are operating the UM-550/880, a MIDI sound module fails to stop producing sound (i.e., if a note "sticks") or something is wrong with the sound, you can execute the Panic function to solve the problem.

To execute the Panic function, simultaneously press the **[P.LOAD]** button and **[P.SAVE]** button.

*   *When you execute the Panic function, the UM-550/880 will transmit All Note Off and Reset All Controller messages.*

Troubleshooting

Be sure to read the Readme_e.txt file found on the UM-550/880 Driver CD-ROM. The Readme_e file contains any additional information that was not included in this manual.

Windows users

* If you are using a Macintosh, please refer to p. 59.

USB connections cannot be made correctly

● **Is the UM-550/880 detected?**

Unplug the USB cable, and then plug it in again.

It is possible that the computer did not correctly detect or initialize the UM-550/880. Try restarting Windows with the USB cable left connected to the UM-550/880. If it is still not detected, exit Windows and turn off the power of your computer. Then turn on the computer once again and restart Windows.

Can't enter Suspend mode

● **Is an application that is using the UM-550/880 still running?**

Exit the application that is using the UM-550/880.

If a sequencer or other application is using the UM-550/880, the computer will not enter suspend mode.

What is "Suspend"?

This is a function found on many computers that temporarily shuts down some internal circuitry and peripheral devices in order to save power while leaving the computer powered-on.

The UM-550/880 does not recover correctly from Suspend mode

● **While suspended, was the UM-550/880 left connected via USB cable?**

Disconnect the USB cable and then re-connect it.

On some computers, the UM-550/880 may not recover when Windows recovers from suspend mode. If this occurs, disconnect the USB cable connecting the UM-550/880 from the USB connector, and then re-connect it.

Windows hangs up (freezes)

● **When recovering from suspend mode, Windows may hang up.**

Disconnect the UM-550/880's USB cable before entering suspend mode. On some computers, Windows may hang up (freeze) when recovering from suspend mode. If this occurs, disconnect the USB cable connected to the UM-550/880 before you enter suspend mode.

When you want to use the UM-550/880 once again, make sure that the computer has recovered correctly from suspend mode, and then connect the USB cable to the UM-550/880.

* If your computer has a switch for activating Suspend mode, disconnect the USB cable from the UM-550/880 before you press that switch.

* For some notebook computers, closing the cover (display) of the computer automatically activates Suspend mode, so disconnect the USB cable from the UM-880 before closing the cover.

● **Windows may hang up if you connect/disconnect the USB cable or operate the USB select switch while a MIDI application is running.**
Do not connect/disconnect the USB cable or operate the USB select switch while a MIDI application is running.

Can't install/delete/use the driver in Windows XP/2000

● **Did you log on to Windows as a user with administrative privileges?**
In order to install/delete/re-install the driver in Windows XP/2000, you must be logged into Windows as a user with administrative privileges, such as Administrator. For details, please contact the system administrator for your computer system.

● **Did you make "Driver signature settings"?**
In order to install/re-install the driver, you must make "Driver Signing."

Windows XP/2000 displays a "Digital signature was not found" dialog box

● **Did you make "Driver signature settings"?**
In order to install/re-install the driver, you must make the settings described in "**Driver Signing**."

Device Manager shows "?", "!", or "USB Composite Device"

The "Insert Disk" dialog box does not appear

Use the following procedure to re-install the driver.

1. Turn off the power of your computer, and start up Windows with all USB cables disconnected (except for keyboard and mouse).

2. After Windows restarts, use a USB cable to connect the UM-550/880 to your computer.

3. Turn on the power of UM-550/880.

4. Open the Windows **Control panel**.

5. Double-click the **System** icon. The **System Properties** dialog box will appear.

6. Click the **Device Manager** tab.
In Windows XP, select the **System Properties Hardware** tab, and click **Device Manager**.

7. Check whether you can see an indication of "**?Composite USB Device, ?USB Device, !USB Device,**" or "**USB composite device**" displayed below "**Sound, Video, and Game Controllers, Other Devices**," or "**Universal Serial Bus Controller**." If you find any such indication, select it and click **[Delete]**.

8. A dialog box will ask you to **confirm deletion of the device**. Verify the contents of the dialog box, and then click **[OK]**. In the same way, delete all indications of "**?Composite USB Device**," "**?USB Device**," "**USB Device**," and "**USB composite device**" that you find.

9. If you find **EDIROL UM-550/880** with a yellow "**!**" or a red "**?**" displayed beside it, delete this in the same way.

10. When you have finished deleting the unwanted devices, click **[OK]** in the **System Properties** dialog box.

11. Turn off the power of the UM-550/880, then delete the driver. "Deleting the driver" (CD-ROM Readme)

12. Restart Windows. Then install the driver once again. (-> **Installing & Setting Up the Driver (Windows)** (p. 14))

* *If the problem still occurs after you have taken the above measures, please refer also to the Readme file for the USB driver. The Readme file is on the CD-ROM.*

No sound

● **Are the USB cable, MIDI cables, and audio cables connected correctly?**
Connect the cables correctly.

● **Are the volumes turned up for your sound generator, audio devices, and application?**
Check each of the volume settings.

● **Are the sound generator settings correct?**
Set the computer switch of your sound generator to "MIDI."

● **Are the patching settings correct?**
If the patching settings are incorrect, MIDI data will not be transmitted or received correctly. Press the **[PATCH]** button to check the current patching settings.(-> **Specifying the MIDI input/output destinations (PATCH)** (p. 37))

Notes are sounded in duplicate

● **Is the Local Control setting of your MIDI device turned on?**
If you are using a MIDI keyboard with a built-in MIDI sound generator, notes may be sounded in duplicate if the Local Control setting is on. Turn off the Local Control setting of your MIDI device.

● **Notes may be sounded in duplicate for certain patching settings.**
Check the current patch and the Merge Port settings, and check whether the same data is being transmitted to a MIDI OUT connector in duplicate.
If the Soft Thru setting of your sequencer is turned on, notes may be sounded in duplicate. If so, try turning off the Soft Thru setting of your sequencer.

Tempo is irregular/Data cannot be transmitted/received correctly

● **It is possible that the amount of data at the Merge Port has exceeded the limits of the MIDI specification.**
It is possible that the total amount of data being sent to the Merge Port exceeds the limits of the MIDI specification (31.25 kbps). To ensure that this limit is not exceeded, reduce the number of input ports that are being merged, or reduce the amount of MIDI data that is being transmitted.

When MIDI data is transmitted/received between a computer and the UM-550/880, the computer hangs up, or the UM-550/880's USB indicator goes dark

These problems may occur if the USB waveform of your computer does not sufficiently meet the standard. If this occurs, you may be able to solve the problem by connecting the UM-550/880 via a self-powered USB hub.

Windows Me/98 users

The most recent information is provided in "Troubleshooting" in the Readme_j.htm file found in the WinMe_98 folder (within UM-550 or UM-880) on the CD-ROM. Refer to the appropriate section.

- Can't install/uninstall the driver
- Can't select the UM-550/880 device
- Can't playback/record
- Problems during playback, such as interrupted notes or omitted notes

Windows XP/2000 users

The most recent information is provided in "Troubleshooting" in the Readme_j.htm file found in the WinXP_2k folder (within UM-550 or UM-880) on the CD-ROM. Refer to the appropriate section.

- Can't t install/uninstall/use the driver
- Can't select the UM-880 device
- Can't play back/record
- Part of the playback is wrong: e.g., notes are broken off prematurely, or some notes are lost
- The "Digital signature was not found" or "Hardware installation" dialog box is displayed
- You are asked for the driver file even though it has already been installed
- Can't use two or more units simultaneously
- Other

Macintosh users

An error dialog box is displayed

● Has the UM-550/880 driver been installed?

If you connect the UM-550/880 to your computer before installing the UM-550/880 driver, an error dialog box will appear.

If the dialog box indicates "The software needed to use the USB device "Unknown Device" cannot be found. Please refer to the device documentation to install the necessary software", you should click [OK].

If the dialog box indicates "Software needed for the USB device "Unnamed Device" is not available. Would you like to look for the software on the Internet?", you should click [Cancel].

After closing the dialog box, install the UM-550/880 driver as described in OMS settings (p. 31), or FreeMIDI settings (p. 35).

Can't install the USB MIDI driver

● Have you exited all other software?

You must exit all currently running software.

● Is OMS or FreeMIDI installed?

If OMS or FreeMIDI are not installed, it will not be possible to install the USB MIDI driver. You must first install OMS or FreeMIDI. For details on OMS, refer to "OMS_2.3_Mac.pdf" (on-line manual) found in the "OMS 2.3.8E" folder within the "OMS" folder on the CD-ROM.

Can't make USB connections correctly

● Has the UM-550/880 been detected correctly?

- Disconnect the USB cable, and then re-connect it.
- If another USB device is connected, try connecting only the UM-550/880.
- It is possible that the computer did not correctly detect or initialize the UM-550/880. Try restarting your Macintosh with the USB cable left connected to the UM-550/880. If it is still not detected, shut down the Macintosh and turn it off. Then turn on the power of the Macintosh once again and restart.
- The UM-550/880 will not be recognized from the USB connector of the Macintosh keyboard. Re-connect it to the USB connector of the computer itself.

The Macintosh hangs up (freezes)

● The Macintosh may hang up if you connect/disconnect the USB cable or operate the USB select switch while a MIDI application is running.

Do not connect/disconnect the USB cable or operate the USB select switch while a MIDI application is running.

No sound

● **Are the USB cable, MIDI cables, and audio cables connected correctly?**
Connect the cables correctly.

● **Are the volumes turned up for your sound generator, audio devices, and application?**
Check each of the volume settings.

● **Are the patching settings correct?**
If the patching settings are incorrect, MIDI data will not be transmitted or received correctly. Press the **[PATCH]** button to check the current patching settings. (-> **Specifying the MIDI input/output destinations (PATCH)** (p. 37))

● **Is the MIDI output from your sequencer assigned to a composite port?**
If the MIDI output port of your sequencer is assigned to a composite port (such as the UM-550/880), no sounds will be output from the UM-550/880's MIDI output connectors. When specifying the MIDI output port on your sequencer, you must select individual MIDI ports (such as Port 1). For details on MIDI output port settings for your sequencer, refer to the manual for your sequencer.

● **Is your sound module set correctly?**
Read the owner's manual for your sound module, and make the correct settings.

Tempo is irregular/Data cannot be transmitted/received correctly

● **It is possible that the data volume of the Merge port is exceeding the rated value.**
It is possible that the total amount of MIDI data is exceeding the rated value (31.25 kbps). Ensure that the total amount does not exceed the rated value, either by reducing the number of input ports that are being merged, or by reducing the amount of MIDI data that is being transmitted.

The UM-550/880 does not recover correctly from Sleep mode

● **If your Macintosh enters Sleep mode, exit the software, and then restart it.**
We recommend that you set the Energy Saver Control Panel so that the computer does not enter Sleep mode.

Notes are sounded in duplicate

● **Is the Local Control setting of your MIDI device turned on?**
If you are using a MIDI keyboard with a built-in sound generator, notes may be sounded in duplicate if the Local Control setting is on. Turn off the Local Control setting of your MIDI device.

● **Notes may be sounded in duplicate for certain patching settings.**
Check the patch and Merge Port settings to see whether the USB/MIDI input is sending the same data to a MIDI OUT connector.
If the Soft Thru setting of your sequencer is turned on, notes may be sounded in duplicate. If so, turn off the Soft Thru setting of your sequencer.

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Appendices

Using multiple UM-550/880 units

You can use up to four UM-550/880 units together. Depending on your system, it may not be possible to use two or more units simultaneously due to the limitations of CPU processing power, hard disk, memory, or application performance.

■ Note of the Connecting Multiple UM-550/880 Units

When connecting multiple UM-550/880 units, the order of the MIDI device is assigned in the order (connection order) in which the computer recognized each UM-550/880 unit at the time of turning on the power of your computer or restarting the computer. Therefore, the order of the MIDI device may be changed when you restart the computer.

In order to change the order of the MIDI device assigned to each UM-550/880, disconnect the USB cables connected to all UM-550/880 units (from the computer or USB hub). Then connect the UM-550/880 that you want to be the first unit to the USB connector that had been connected to the UM-550/880 previously recognized as the first unit. Make connections in the same way for the second and subsequent units.

■ Windows Users

If you use multiple UM-550/880 units, device numbers will be added to the beginning of the device name to indicate the order (connection order) in which the computer recognized each UM-550/880 unit.

This is the same for the UM-880.

1: EDIROL UM-880 MIDI 1
1: EDIROL UM-880 MIDI 2
1: EDIROL UM-880 MIDI 3
        :
2: EDIROL UM-880 MIDI 1
2: EDIROL UM-880 MIDI 2
2: EDIROL UM-880 MIDI 3
        :
3: EDIROL UM-880 MIDI 1
3: EDIROL UM-880 MIDI 2
3: EDIROL UM-880 MIDI 3
        :
4: EDIROL UM-880 MIDI 1
4: EDIROL UM-880 MIDI 2
4: EDIROL UM-880 MIDI 3

1:EDIROL UM-550 MIDI 1
1:EDIROL UM-550 MIDI 2
1:EDIROL UM-550 MIDI 3
:

2:EDIROL UM-550 MIDI 1
2:EDIROL UM-550 MIDI 2
2:EDIROL UM-550 MIDI 3
:

3:EDIROL UM-550 MIDI 1
3:EDIROL UM-550 MIDI 2
3:EDIROL UM-550 MIDI 3
:

4:EDIROL UM-550 MIDI 1
4:EDIROL UM-550 MIDI 2
4:EDIROL UM-550 MIDI 3
:

■ OMS Users on Macintosh

If you connect multiple UM-550/880 units and make OMS settings ,multiple "**EDIROL UM-550/ 880**" items will appear , as shown in the illustration. Simply click **[OK]**, and follow the procedure to check all of the ports.
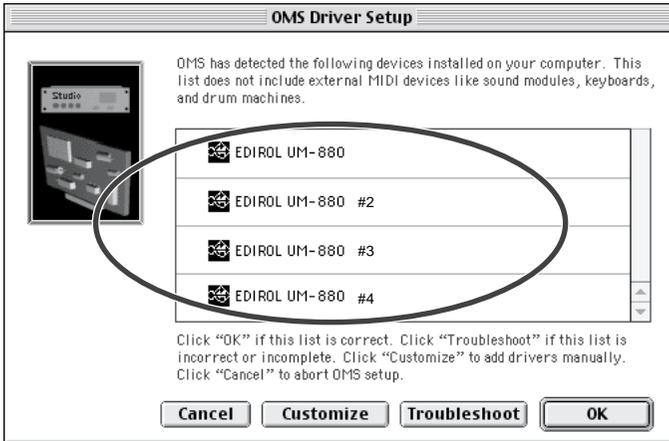
■ FreeMIDI Users on Macintosh

If you connect multiple UM-550/880 units and make FreeMIDI settings, multiple "**UM-550/880 Port**" items will appear, as shown in the illustration. Check all of them, and click **[OK]**. Then follow the procedure to continue making settings.
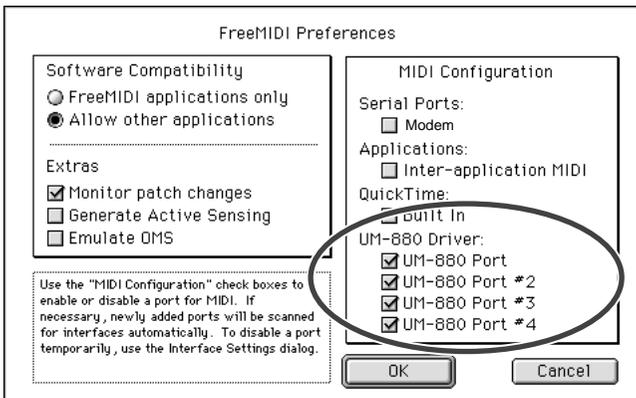
Block Diagram

UM-550
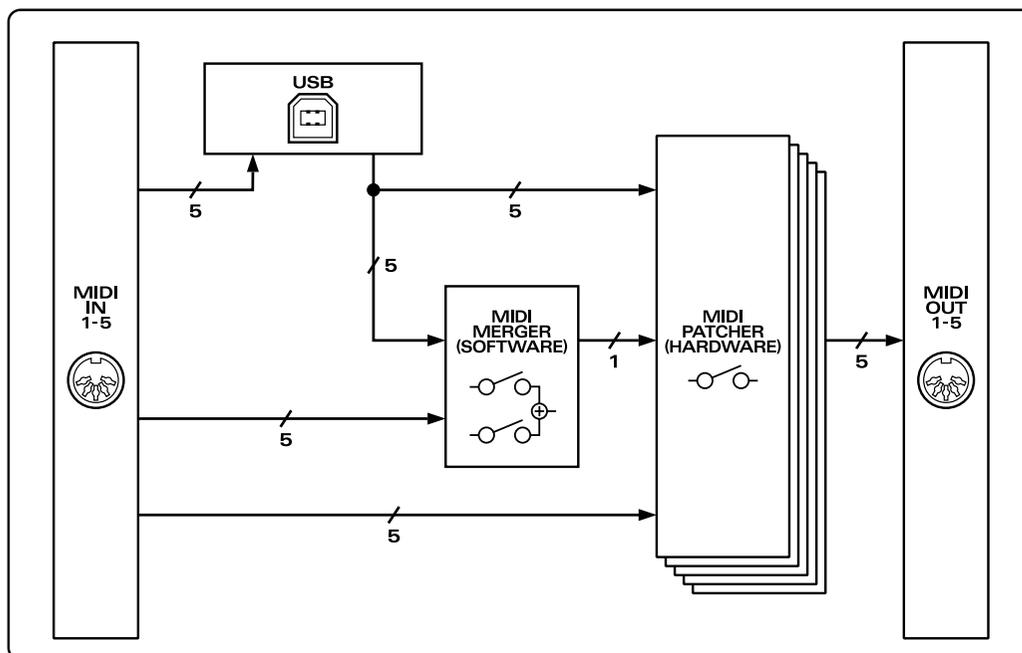
■ SETUP mode

Button	Function
INPUT 1	BULK DUMP
INPUT 2	CONTROL PORT SET
INPUT 3	POWER ON CONDITION
INPUT 4	PATCH CLEAR
INPUT 5	FACTORY PRESET

BULK DUMP

Button	Function
OUTPUT 1	CURRENT PATCH
OUTPUT 5	ALL PATCH

POWER ON CONDITION

Button	Function
OUTPUT 1	EDIROL ORIGINAL USB DRIVER
OUTPUT 2	GENERIC USB DRIVER
OUTPUT 4	RESUME CURRENT PATCH
OUTPUT 5	NOT RESUME CURRENT PATCH

PATCH CLEAR

Button	Function
OUTPUT 1	CURRENT PATCH
OUTPUT 5	ALL PATCH

■ UTILITY mode

Button	Function
INPUT 1	MIDI OUT PREVIEW
INPUT 2	MIDI CABLE CHECK
INPUT 3	MIDI EVENT FILTER 1
INPUT 4	MIDI EVENT FILTER 2

MIDI EVENT FILTER 1

Button	Function
OUTPUT 1	NOTE ON/NOTE OFF
OUTPUT 2	POLYPHONIC KEY PRESSURE
OUTPUT 3	CONTROL CHANGE
OUTPUT 4	PROGRAM CHANGE

MIDI EVENT FILTER 2

Button	Function
OUTPUT 1	CHANNEL PRESSURE
OUTPUT 2	PITCH BEND
OUTPUT 3	REALTIME/COMMON MESSAGE
OUTPUT 4	SYSTEM EXCLUSIVE

UM-880
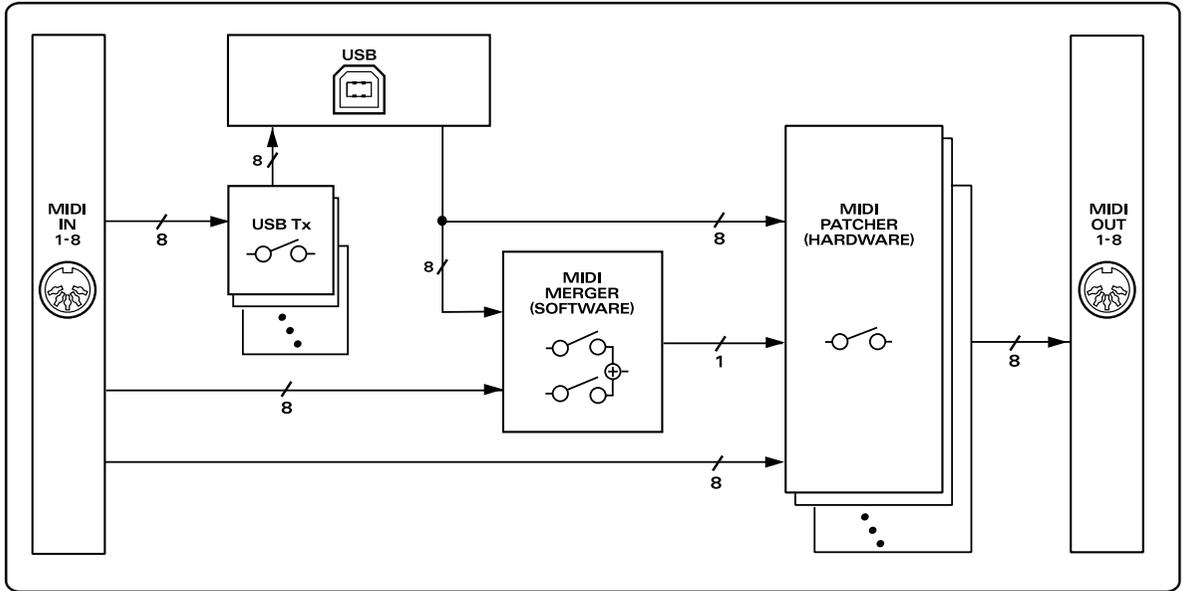
■ SETUP mode

Button	Function
INPUT 1	USB Tx
INPUT 2	BULK DUMP(CURRENT PATCH)
INPUT 3	BULK DUMP(ALL PATCH)
INPUT 4	CONTROL PORT SET
INPUT 5	POWER ON CONDITION
INPUT 6	PATCH CLEAR(CURRENT)
INPUT 7	PATCH CLEAR(ALL)
INPUT 8	FACTORY PRESET

POWER ON CONDITION

Button	Function
OUTPUT 1	EDIROL ORIGINAL USB DRIVER
OUTPUT 2	GENERIC USB DRIVER
OUTPUT 5	RESUME CURRENT PATCH
OUTPUT 6	NOT RESUME CURRENT PATCH

■ UTILITY mode

Button	Function
INPUT 1	MIDI OUT PREVIEW
INPUT 2	MIDI CABLE CHECK
INPUT 3	MIDI EVENT FILTER

MIDI EVENT FILTER

Button	Function
OUTPUT 1	NOTE ON/NOTE OFF
OUTPUT 2	POLYPHONIC KEY PRESSURE
OUTPUT 3	CONTROL CHANGE
OUTPUT 4	PROGRAM CHANGE
OUTPUT 5	CHANNEL PRESSURE
OUTPUT 6	PITCH BEND
OUTPUT 7	REALTIME/COMMON MESSAGE
OUTPUT 8	SYSTEM EXCLUSIVE

UM-550/880 error message list

1. When an exclusive message is received

If one of the following errors occurs when the control port receives an exclusive message, the indicators that are shaded in the diagram at right will blink.

- Check Sum Error
- SysEx Format Error
- Value overflow Error
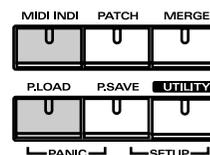
2. When the total amount of data exceeds the limit

When the total amount of data being sent to the Merge Port exceeds the limit of the MIDI specification (31.25 kbps), the indicators of the buttons that are shaded in the diagram at right will blink.
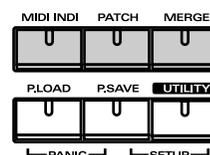
3. When the data at a MIDI input port exceeds the rated amount

If the data at a MIDI input port exceeds the rated amount, the indicators that are shaded in the diagram at right will blink.

*   *The error indication will cease when you press any other button.*
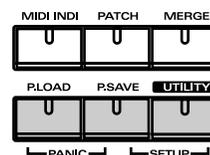
Attaching the rack-mount adaptor

UM-550

1. Remove three screws (on each side) from the right and left panels of the UM-550.

2. Using the screws you removed in **step 1**, attach the rack-mount brackets to the UM-550.

  * *You must use the screws that you removed. Do not use any other screws.*
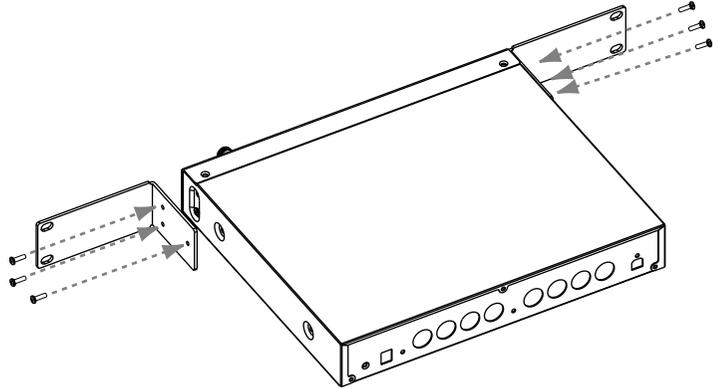
Attaching the desk-stand mount

UM-550

1. Remove three screws from the right panel of the UM-550.

2. Affix the cushion set (stickers) to the locations shown in the diagram at right.

Cushion set (stickers)
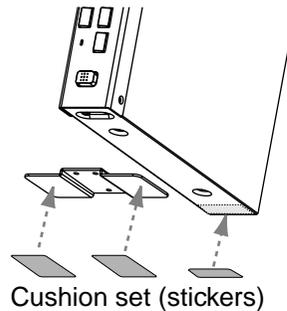
3. Using the screws you removed in **step 1**, attach the desk-stand mount to the UM-550.

  * *You must use the screws that you removed. Do not use any other screws.*
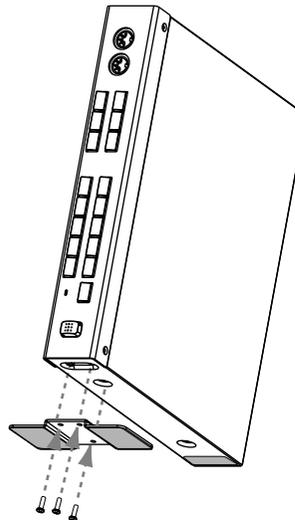
NOTE When standing the UM-550 on its side, make sure to position it so the power switch is at the bottom.

MIDI Implementation

1. Receive data

■Channel Voice Messages

● Patch Change / Midi Control Port or USB Control Port

Status	2nd byte
CFH	ppH

pp = memory number: 01H – 08H (Memory 1 - Memory 8)

* Used to switch patches.
* When using Patch Change or system exclusive to change the current patch, the UM-880 will require up to 200 milliseconds of processing time in order to process the changes. When changing the current patch of the UM-880 from a sequencer, please allow an interval of 200 ms or more before the next data.

■System Exclusive Message

●Data transmission

The UM-880 can use Exclusive messages to transmit internal settings to other devices. There are two types of Exclusive data transmission; **Individual Parameter Transmission** (p. 68) in which single parameters are transmitted one by one, and **Bulk Dump Transmission** (p. 70) in which a large amount of data is transmitted at once.

❍Request data 1   RQ1 (11H)

This message requests the other device to send data. The Address and Size determine the type and amount of data to be sent. There are two types of request; Individual Parameter Request which requests data for an individual parameter, and Bulk Dump Request which requests a large amount of data at once. In either case, the "Data Request 1 (RQ1)" message format is used, and the Address and Size included in the message determine the type and amount of data that is desired.
For Individual Parameter Request, **Individual Parameter Transmission** (p. 68)
For Bulk Dump Request, refer to **Bulk Dump** (p. 70)
When a Data Request message is received, if the device is ready to transmit data and if the address and size are appropriate, the requested data will be transmitted as a "Data Set 1 (DT1)" message. If not, nothing will be transmitted.

Status	Data byte	Status
F0H	41H, 10H, 00H, Model, 11H, 0AH, 00H, 00H, ssH, sum	F7H

Byte	Explanation	
F0H	Exclusive status	
41H	ID number (Roland)	
10H	Device ID	
00H	Model ID MSB	
mdl	Model ID LSB	(UM-550: 54H, UM-880: 49H)
11H	Command ID (RQ1)	
0AH	Address MSB:	upper byte of the starting address of the requested data
00H	Address LSB:	lower byte of the starting address of the requested data
00H	Size MSB	
ssH	Size LSB	
sum	Checksum	
F7H	EOX	(End Of Exclusive)

* The amount of data that can be transmitted at one time will depend on the type of data, and data must be requested using a specific starting address and size. Refer to the Address and Size listed in **Individual Parameter Transmission** (p. 68)
* Regarding the checksum, please refer to **Section 5** (p. 72)

❍Data set 1 DT1 (12H)

This is the message that actually performs data transmission, and is used when you wish to transmit the data.

Status	Data byte	Status
F0H	41H, 10H, 00H, mdl, 12H, aaH, bbH, ccH, sum	F7H

Byte	Explanation	
F0H	Exclusive status	
41H	ID number (Roland)	
10H	Device ID	
00H	Model ID MSB	
mdl	Model ID LSB	(UM-550: 54H, UM-880: 49H)
12H	Command ID (DT1)	
aaH	Address MSB:	upper byte of the starting address of the transmitted data
bbH	Address LSB:	lower byte of the starting address of the transmitted data
ccH	Data:	the actual data to be transmitted. Multiple bytes of data are transmitted starting from the address.
:	:	
sum	Checksum	
F7H	EOX	(End Of Exclusive)

* The amount of data that can be transmitted at one time depends on the type of data, and data can be received only from the specified starting address and size. Refer to the Address and Size given in **Individual Parameter Transmission** (p. 68)
* Data larger than 128 bytes must be divided into packets of 128 bytes or less. If "Data Set 1" is transmitted successively, there must be an interval of at least 40 ms between packets.
* Regarding the checksum, please refer to **Section 5** (p.72)

❍Bulk Dump Format

Internal parameters of the UM-880 will be transmitted and received.

Status	Data byte	Status
F0H	41H, 10H, 00H, mdl, 12H, 0AH, 00H, Data0,...,Data24, sum	F7H

Byte	Explanation	
F0H	Exclusive status	
41H	ID number (Roland)	
10H	Device ID	
00H	Model ID MSB	
mdl	Model ID LSB	(UM-550: 54H, UM-880: 49H)
12H	Command ID (DT1)	
0AH	Address MSB:	upper byte of the starting address of the transmitted data
00H	Address LSB:	lower byte of the starting address of the transmitted data
Data0		
:	:	
Data24		
sum	Checksum	
F7H	EOX	(End Of Exclusive)

* The data of the region specified by Data 0 is transmitted in succession from Data 1 through Data 24. For details, refer to p. 54.

2. Transmit data

■Channel Voice Messages

●Note off

Status	2nd byte	3rd byte
8nH	kkH	40H

n = MIDI channel number: 0H – FH (Ch.1 – 16)
aa = note number: 00H – 7FH (0 – 127)

* Transmitted when Panic is executed.
* Transmitted for all channels and all notes (00H--7FH).
* A total of 16 channels x 128 notes = 1970 note-off messages will be transmitted.

●Note off (A4)

Status	2nd byte	3rd byte
80H	45H	40H

*   Transmitted during Preview.

●Note on

Status	2nd byte	3rd byte
90H	45H	64H

*   Transmitted during Preview.

■Channel Mode Messages

●All Sounds Off (Controller number 120)

Status	2nd byte	3rd byte
BnH	78H	00H

n = MIDI channel number: 0H – FH (Ch.1 – 16)

*   When this message is received, all currently sounding notes on the corresponding channel will be turned off immediately.

●Reset All Controllers (Controller number 121)

Status	2nd byte	3rd byte
BnH	79H	00H

n = MIDI channel number: 0H – FH (Ch.1 – 16)

*   Transmitted when changing patches and when Panic is executed.
*   When this message is received, the following controllers will be set to their reset values.

Controller	Reset value
Pitch Bend Change	+/-0 (center)
Polyphonic Key Pressure	0 (off)
Channel Pressure	0 (off)
Modulation	0 (off)
Expression	127 (max)
Hold 1	0 (off)
Portamento	0 (off)
Sostenuto	0 (off)
Soft	0 (off)
RPN	unset; previously set data will not change
NRPN	unset; previously set data will not change

●All Notes Off (Controller number 123)

Status	2nd byte	3rd byte
BnH	7BH	00H

n = MIDI channel number: 0H – FH (Ch.1 – 16)

*   Transmitted when changing patches and when Panic is executed.
*   When All Notes Off is received, all notes on the corresponding channel will be turned off. However, if Hold 1 or Sostenuto is ON, the sound will be continued until these are turned off.

■System Realtime Message

●Timing Clock

Status
F8H

*   Transmitted when checking a cable.
*   Transmitted continuously to MIDI OUT 1/2.

●Active Sensing

Status
FEH

*   Transmitted constantly at intervals of approximately 250 ms.

○Data set 1 DT1 (12H)

This is the message that actually performs data transmission, and is used when you wish to transmit the data.

Status	Data byte	Status
F0H	41H, 10H, 00H, mdl, 12H, aaH, bbH, ccH, sum	F7H

Byte	Explanation

F0H	Exclusive status	
41H	ID number (Roland)	
10H	Device ID	
00H	Model ID MSB	
mdl	Model ID LSB	(UM-550: 54H, UM-880: 49H)
12H	Command ID	(DT1)
aaH	Address MSB:	upper byte of the starting address of the transmitted data
bbH	Address LSB:	lower byte of the starting address of the transmitted data
ccH	Data:	the actual data to be transmitted. Multiple bytes of data are transmitted starting from the address.
:	:	
sum	Checksum	
F7H	EOX	(End Of Exclusive)

*   The amount of data that can be transmitted at one time depends on the type of data, and data can be received only from the specified starting address and size. Refer to the Address and Size given in **Individual Parameter Transmission** (p. 68)
*   Data larger than 128 bytes must be divided into packets of 128 bytes or less. If "Data Set 1" is transmitted successively, there must be an interval of at least 40 ms between packets.
*   Regarding the checksum, please refer to **Section 5** (p.72)

○Bulk Dump Format

Status	Data byte	Status
F0H	41H, 10H, 00H, mdl, 12H, 0AH, 00H, Data0,...,Data24, sum	F7H

Byte	Explanation	
F0H	Exclusive status	
41H	ID number (Roland)	
10H	Device ID	
00H	Model ID MSB	
mdl	Model ID LSB	(UM-550: 54H, UM-880: 49H)
12H	Command ID	(DT1)
0AH	Address MSB:	upper byte of the starting address of the transmitted data
00H	Address LSB:	lower byte of the starting address of the transmitted data
Data0		
:	:	
Data24		
sum	Checksum	
F7H	EOX	(End Of Exclusive)

*   The data of the region specified by Data 0 is transmitted in succession from Data 1 through Data 24.

3. Individual Parameter Transmission

(UM-550: Model ID=54H, UM-880: Model ID=49H)

Individual Parameter Transmission transmits data (or requests data) for one parameter as one Exclusive message (one packet of "F0 ..... F7").

In Individual Parameter Transmission, you must use the Address and Size listed in the following "Parameter Address Map".

■Address Block map

An outlined address map of the Individual Parameter Transmission is as follows;

Address(H)	Block
00 00	Current Patch
01 00	Memory 1
02 00	Memory 2
:	
08 00	Memory 8
09 00	System Setup

■Parameter address map

This map lists the addresses, areas whose data can be specified, parameters (data types), and explanations that apply when the exclusive messages "Data request 1" and "Data set 1" are used to transmit data.

●Data set parameter

Address(H)	Data(H)	Parameter	Explanation
00 00	00	CURRENT MIDI OUT1 PATCH	NO ASSIGN
00 00	01	CURRENT MIDI OUT1 PATCH	MIDI IN 1
:	:	:	:
00 00	08	CURRENT MIDI OUT1 PATCH	MIDI IN 8
00 00	09	CURRENT MIDI OUT1 PATCH	USB IN 1
:	:	:	:
00 00	10	CURRENT MIDI OUT1 PATCH	USB IN 8
00 00	11	CURRENT MIDI OUT1 PATCH	MERGE
00 01	00	CURRENT MIDI OUT2 PATCH	NO ASSIGN
:	:	:	:
00 07	11	CURRENT MIDI OUT8 PATCH	MERGE
00 08	00	CURRENT USB 1 MERGE ENABLE	MERGE DISABLE
00 08	01	CURRENT USB 1 MERGE ENABLE	MERGE ENABLE
00 09	00	CURRENT USB 2 MERGE ENABLE	MERGE DISABLE
:	:	:	:
00 0F	01	CURRENT USB 8 MERGE ENABLE	MERGE ENABLE
00 10	00	CURRENT MIDI IN 1 MERGE ENABLE	MERGE DISABLE
00 10	01	CURRENT MIDI IN 1 MERGE ENABLE	MERGE ENABLE
00 11	00	CURRENT MIDI IN 2 MERGE ENABLE	MERGE DISABLE
:	:	:	:
00 17	01	CURRENT MIDI IN 8 MERGE ENABLE	MERGE ENABLE
01 00	00	MEMORY 1 MIDI OUT1 PATCH	NO ASSIGN
:	:	:	:
01 17	01	MEMORY 1 MIDI IN 8 MERGE ENABLE	MERGE ENABLE
02 00	00	MEMORY 2 MIDI OUT1 PATCH	NO ASSIGN
:	:	:	:
08 17	01	MEMORY 8 MIDI IN 8 MERGE ENABLE	MERGE ENABLE
09 00	00	SYSTEM MIDI FILTER ENABLE NOTE	FILTER DISABLE
09 00	01	SYSTEM MIDI FILTER ENABLE NOTE	FILTER ENABLE
09 01	00	SYSTEM MIDI FILTER ENABLE Ax	FILTER DISABLE
09 01	01	SYSTEM MIDI FILTER ENABLE Ax	FILTER ENABLE
09 02	00	SYSTEM MIDI FILTER ENABLE Bx	FILTER DISABLE
09 02	01	SYSTEM MIDI FILTER ENABLE Bx	FILTER ENABLE
09 03	00	SYSTEM MIDI FILTER ENABLE Cx	FILTER DISABLE
09 03	01	SYSTEM MIDI FILTER ENABLE Cx	FILTER ENABLE
09 04	00	SYSTEM MIDI FILTER ENABLE Dx	FILTER DISABLE
09 04	01	SYSTEM MIDI FILTER ENABLE Dx	FILTER ENABLE
09 05	00	SYSTEM MIDI FILTER ENABLE Ex	FILTER DISABLE
09 05	01	SYSTEM MIDI FILTER ENABLE Ex	FILTER ENABLE
09 06	00	SYSTEM MIDI FILTER ENABLE SYS REAL/SYS COM	FILTER DISABLE
09 06	01	SYSTEM MIDI FILTER ENABLE SYS REAL/SYS COM	FILTER ENABLE
09 07	00	SYSTEM MIDI FILTER ENABLE SYS EX	FILTER DISABLE
09 07	01	SYSTEM MIDI FILTER ENABLE SYS EX	FILTER ENABLE
09 08	00	SYSTEM USB Tx1 ENABLE	Tx DISABLE
09 08	01	SYSTEM USB Tx1 DISABLE	Tx ENABLE
09 09	00	SYSTEM USB Tx2 ENABLE	Tx DISABLE
:	:	:	:
09 0F	01	SYSTEM USB Tx8 DISABLE	Tx ENABLE
09 10	00	SYSTEM MIDI CNT PORT	NO ASSIGN
09 10	01	SYSTEM MIDI CNT PORT	MIDI IN/OUT 1
:	:	:	:
09 10	08	SYSTEM MIDI CNT PORT	MIDI IN/OUT 8
09 11	00	SYSTEM USB DRIVER SEL	GENERIC
09 11	01	SYSTEM USB DRIVER SEL	ORIGINAL
09 12	00	SYSTEM CURRENT RESUME SEL	DO NOT RESUME CURRENT
09 12	01	SYSTEM CURRENT RESUME SEL	RESUME CURRENT

4. Bulk Dump

By using Bulk Dump, a large amount of data can be transferred at once. This is used to store settings for an entire device onto a computer or sequencer. In order to make the UM-880 transmit a bulk dump, send it the bulk dump request messages listed below. Bulk dump requests use the Data Request 1 (RQ1) format, but unlike the case when transmitting individual parameters, the "size" in the request message does not specify the data size, but rather is used to specify the contents of the data. For the actual contents of the data corresponding to each size, refer to the "Parameter Dump" section.

When the UM-880 receives a bulk dump request, it will transmit a bulk dump in the format described below.

■Parameter dump

❍Parameter dump request

This is a command that requests a set of parameter data, and uses "Data Request 1 (RQ1)" format. The Size specifies the requested data contents.

Address(H)	Size(H)	Parameter
0A 00	00 00	CURRENT BULK DUMP
0A 00	00 01	MEMORY1 BULK DUMP
0A 00	00 02	MEMORY2 BULK DUMP
0A 00	00 03	MEMORY3 BULK DUMP
0A 00	00 04	MEMORY4 BULK DUMP
0A 00	00 05	MEMORY5 BULK DUMP
0A 00	00 06	MEMORY6 BULK DUMP
0A 00	00 07	MEMORY7 BULK DUMP
0A 00	00 08	MEMORY8 BULK DUMP
0A 00	00 09	SYSTEM BULK DUMP
0A 00	00 0A	ALL PATCH BULK DUMP
0A 00	00 0B	CURRENT & ALL PATCH & SYSTEM BULK DUMP

> *   The most complete reproducibility will be achieved by using CURRENT & ALL PATCH & SYSTEM BULK DUMP (0A 00 00 0B).

<Example>
Dump request for all parameters (UM-550) : F0 41 10 00 54 11 0A 00 00 0B 6B F7
Dump request for all parameters (UM-880) : F0 41 10 00 49 11 0A 00 00 0B 6B F7

●Bulk dump format parameters

Data 0 (Bulk Address)	Data Line (1-24)	Description
00H : Current 01H : Memory 1 | 08H : Memory 8 * "Current" is the current patch data * "Memory" is the patch data stored in the UM-880	Data 1 : MIDI OUT 1 Patch | Data 8 : MIDI OUT 8 Patch	**Connection of MIDI OUT** 00H : No Assign 01H : MIDI IN 1 | 08H : MIDI IN 8 09H : USB IN 1 | 10H : USB IN 8 11H : Merge
	Data 9 : USB 1 Merge Enable | Data 16 : USB 8 Merge Enalbe	**USB# Merge Enable** 00H : Merge Disable 01H : Merge Enable
	Data 17 : MIDI IN 1 Merge Enable | Data 24 : MIDI IN 8 Merge Enalbe	**MIDI IN# Merge Enable** 00H : Merge Disable 01H : Merge Enable

*   When data dumped by the UM-880 is loaded back into the UM-880, be aware that if the packets are transmitted in a different order, or if the time interval between packets is different, or if other messages are inserted between packets, the data may fail to be recognized correctly.

Data 0 (Bulk Address)	Data Line (1-24)	Description
09H : System	Data 1 : MIDI Filter Enable NOTE	**MIDI Filter Enable** 00H : Filter Disable 01H : Filter Enable
	Data 2 : MIDI Filter Enable Ax	
	Data 3 : MIDI Filter Enable Bx	
	Data 4 : MIDI Filter Enable Cx	
	Data 5 : MIDI Filter Enable Dx	
	Data 6 : MIDI Filter Enable Ex	
	Data 7 : MIDI Filter Enable SysReal/ SysCom	
	Data 8 : MIDI Filter Enable SysEx	
	Data 9 : USB Tx1 Enable | Data 16 : USB Tx8 Enable	**USB Tx Enable** 00H : USB Tx Disable 01H : USB Tx Enalbe
	Data 17 : MIDI Cnt Port	**MIDI Control Port** 00H : No Assign 01H - 08H : MIDI IN/OUT 1 -8
	Data 18 : USB Driver Sel	**USB Driver Select** 00H : Generic 01H : Original
	Data 19 : Current Resume Sel	**Currnet Resume Select** 00H : Do Not Resume Current 01H : Resume Current
	Data 20 - Data 24	**Reserved** 00H :

5. Supplementary material

●Decimal and Hexadecimal table

(An "H" is appended to the end of numbers in hexadecimal notation.)

In MIDI documentation, data values and addresses/sizes of Exclusive messages, etc. are expressed as hexadecimal values for each 7 bits.
The following table shows how these correspond to decimal numbers.

Dec.	Hex.	Dec.	Hex.	Dec.	Hex.	Dec.	Hex.
0	00H	32	20H	64	40H	96	60H
1	01H	33	21H	65	41H	97	61H
2	02H	34	22H	66	42H	98	62H
3	03H	35	23H	67	43H	99	63H
4	04H	36	24H	68	44H	100	64H
5	05H	37	25H	69	45H	101	65H
6	06H	38	26H	70	46H	102	66H
7	07H	39	27H	71	47H	103	67H
8	08H	40	28H	72	48H	104	68H
9	09H	41	29H	73	49H	105	69H
10	0AH	42	2AH	74	4AH	106	6AH
11	0BH	43	2BH	75	4BH	107	6BH
12	0CH	44	2CH	76	4CH	108	6CH
13	0DH	45	2DH	77	4DH	109	6DH
14	0EH	46	2EH	78	4EH	110	6EH
15	0FH	47	2FH	79	4FH	111	6FH
16	10H	48	30H	80	50H	112	70H
17	11H	49	31H	81	51H	113	71H
18	12H	50	32H	82	52H	114	72H
19	13H	51	33H	83	53H	115	73H
20	14H	52	34H	84	54H	116	74H
21	15H	53	35H	85	55H	117	75H
22	16H	54	36H	86	56H	118	76H
23	17H	55	37H	87	57H	119	77H
24	18H	56	38H	88	58H	120	78H
25	19H	57	39H	89	59H	121	79H
26	1AH	58	3AH	90	5AH	122	7AH
27	1BH	59	3BH	91	5BH	123	7BH
28	1CH	60	3CH	92	5CH	124	7CH
29	1DH	61	3DH	93	5DH	125	7DH
30	1EH	62	3EH	94	5EH	126	7EH
31	1FH	63	3FH	95	5FH	127	7FH

* Decimal values such as MIDI channel, bank select, and program change are listed as one greater than the values given in the above table.
* A 7-bit byte can express data in the range of 128 steps. For data where greater precision is required, we must use two or more bytes. For example, two hexadecimal numbers aa bbH expressing two 7-bit bytes would indicate a value of aa x 128+bb.
* In the case of values which have a +/- sign, 00H = -64, 40H = +/-0, and 7FH = +63, so that the decimal expression would be 64 less than the value given in the above chart. In the case of two types, 00 00H = -8192, 40 00H = +/-0, and 7F 7FH = +8191. For example, if aa bbH were expressed as decimal, this would be aa bbH - 40 00H = aa x 128+bb - 64 x 128.
* Data marked "Use nibbled data" is expressed in hexadecimal in 4-bit units. A value expressed as a 2-byte nibble 0a 0bH has the value of a x 16+b.

<Example 1> What is the decimal expression of 5AH ?
From the preceding table, 5AH = 90

<Example 2> What is the decimal expression of the value 12 34H given as hexadecimal for each 7 bits?
From the preceding table, since 12H = 18 and 34H = 52
18 x 128+52 = 2356

<Example 3> What is the decimal expression of the nibbled value 0A 03 09 0D ?
From the preceding table, since 0AH = 10, 03H = 3, 09H = 9, 0DH = 13
((10 x 16+3) x 16+9) x 16+13 = 41885

<Example 4> What is the nibbled expression of the decimal value 1258?

```
16)  1258
16)   78 ... 10
16)    4 ... 14
       0 ... 4
```

Since from the preceding table, 0 = 00H, 4 = 04H, 14 = 0EH, 10 = 0AH, the result is: 00 04 0E 0AH.

●Examples of actual MIDI messages

<Example 1> 92 3E 5F
9n is the Note-on status, and n is the MIDI channel number. Since 2H = 2, 3EH = 62, and 5FH = 95, this is a Note-on message with MIDI CH = 3, note number 62 (note name is D4), and velocity 95.

<Example 2> CE 49
CnH is the Program Change status, and n is the MIDI channel number. Since EH = 14 and 49H = 73, this is a Program Change message with MIDI CH = 15, program number 74 (Flute in GS).

<Example 3> EA 00 28
EnH is the Pitch Bend Change status, and n is the MIDI channel number. The 2nd byte (00H = 0) is the LSB and the 3rd byte (28H = 40) is the MSB, but Pitch Bend Value is a signed number in which 40 00H (= 64 x 12+80 = 8192) is 0, so this Pitch Bend Value is
28 00H - 40 00H = 40 x 12+80 - (64 x 12+80) = 5120 - 8192 = -3072

If the Pitch Bend Sensitivity is set to 2 semitones, -8192 (00 00H) will cause the pitch to change -200 cents, so in this case -200 x (-3072) ÷ (-8192) = -75 cents of Pitch Bend is being applied to MIDI channel 11.

<Example 4> B3 64 00 65 00 06 0C 26 00 64 7F 65 7F
BnH is the Control Change status, and n is the MIDI channel number. For Control Changes, the 2nd byte is the control number, and the 3rd byte is the value. In a case in which two or more messages consecutive messages have the same status, MIDI has a provision called "running status" which allows the status byte of the second and following messages to be omitted. Thus, the above messages have the following meaning.

B3	64 00	MIDI ch.4, lower byte of RPN parameter number:00H
(B3)	65 00	(MIDI ch.4) upper byte of RPN parameter number:00H
(B3)	06 0C	(MIDI ch.4) upper byte of parameter value:0CH
(B3)	26 00	(MIDI ch.4) lower byte of parameter value:00H
(B3)	64 7F	(MIDI ch.4) lower byte of RPN parameter number:7FH
(B3)	65 7F	(MIDI ch.4) upper byte of RPN parameter number:7FH

In other words, the above messages specify a value of 0C 00H for RPN parameter number 00 00H on MIDI channel 4, and then set the RPN parameter number to 7F 7FH.

RPN parameter number 00 00H is Pitch Bend Sensitivity, and the MSB of the value indicates semitone units, so a value of 0CH = 12 sets the maximum pitch bend range to +/-12 semitones (1 octave). (On GS sound generators the LSB of Pitch Bend Sensitivity is ignored, but the LSB should be transmitted anyway (with a value of 0) so that operation will be correct on any device.)

Once the parameter number has been specified for RPN or NRPN, all Data Entry messages transmitted on that same channel will be valid, so after the desired value has been transmitted, it is a good idea to set the parameter number to 7F 7FH to prevent accidents. This is the reason for the (B3) 64 7F (B3) 65 7F at the end.

It is not desirable for performance data (such as Standard MIDI File data) to contain many events with running status as given in <Example 4>. This is because if playback is halted during the song and then rewound or fast-forwarded, the sequencer may not be able to transmit the correct status, and the sound generator will then misinterpret the data. Take care to give each event its own status.

It is also necessary that the RPN or NRPN parameter number setting and the value setting be done in the proper order. On some sequencers, events occurring in the same (or consecutive) clock may be transmitted in an order different than the order in which they were received. For this reason it is a good idea to slightly skew the time of each event (about 1 tick for TPQN = 96, and about 5 ticks for TPQN = 480).

* TPQN: Ticks Per Quarter Note

●Example of an Exclusive message and calculating a checksum

Roland Exclusive messages (RQ1, DT1) are transmitted with a checksum at the end (before F7) to make sure that the message was correctly received. The value of the checksum is determined by the address and data (or size) of the transmitted Exclusive message.

❍How to calculate the checksum (hexadecimal numbers are indicated by "H")

The checksum is a value derived by adding the address, size, and checksum itself and inverting the lower 7 bits.

Here's an example of how the checksum is calculated. We will assume that in the Exclusive message we are transmitting, the address is aa bb ccH and the data or size is dd ee ffH.

aa+bb+cc+dd+ee+ff = sum
sum ÷ 128 = quotient ... remainder
128 - remainder = checksum

<Example 1> Set the UM-550's Memory 3 USB 1 Merge setting to "Enable"
According to the **Parameter address map** (p. 69), the address for Memory 3 USB 1 Merge is 03 08H, and for Enable the value of the parameter should be 01H. Thus,

F0	41	10	00	54	12	03 08	02		
		F7							
(1)	(2)	(3)	(4)	(5)	(6)	address	data	checksum	(7)

(1) Exclusive Status,   (2) ID (Roland),   (3) Device ID (17),
(4) Model ID MSB,   (5) Model ID LSB,   (6) Command ID (DT1),
(7) End of Exclusive

Next, we calculate the checksum.

03H+08H+01H = 3 + 8 + 1 = 12 (sum)
12 (sum) ÷ 128 = 0 (quotient) ... 12 (remainder)
checksum = 128 - 12 (remainder) = 126 = 74H

This means that F0 41 10 00 54 12 03 08 02 74 F7 is the message we transmit.

<Example 2> UM:880: Request data transmission for memory 7
According to the **Parameter address map** (p. 69), the address is 0A 00H and the size is 00 07H. Thus,

F0	41	10	00	49	11	0A 00	00 07	??	F7
(1)	(2)	(3)	(4)	(5)	(6)	address	data	checksum	(7)

(1) Exclusive Status,   (2) ID (Roland),   (3) Device ID (17),
(4) Model ID MSB,   (5) Model ID LSB   (6) Command ID(RQ1),
(7) End of Exclusive

Next we calculate the checksum.

0AH + 00H + 00H + 07H = 10 + 0 + 0 + 7 = 17 (sum)
17 (sum) ÷ 128 = 0 (quotient) ... 17 (remainder)
checksum = 128 - 17 (remainder) = 111 = 6FH

This means that F0 41 10 00 49 11 0A 00 00 07 6F F7 is the message we transmit.

USB MIDI INTERFACE
Model UM-550/880

MIDI Implementation Chart

Date : Sep. 10, 2001
Version : 1.00

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default	X	1–16, OFF	**Remembered even while the power is turned off.**
	Changed	X	1–16, OFF	
Mode	Default	X	Mode 3	
	Messages	X	X	
	Altered	**************		
Note Number :		O	0–127	
	True Voice	**************	0–127	
Velocity	Note On	O *1 (45H)	X	
	Note Off	O	X	
After Touch	Key's	O *1 (90 v=64H)	X	
	Channel's	O *1 (8nH v=40H)	X	
Pitch Bend		X	X	
Control Change	0-120	O	X	
	121	*2 *3	X	
Program Change		X	0-7	
	: True Number	**************	0–7	
System Exclusive		O	O	
System Common	: Song Position	X	X	
	: Song Select	X	X	
	: Tune Request	X	X	
System Real Time	: Clock	O *4	X	
	: Commands	X	X	
Aux Messages	: All Sound Off	*2 *3 (78H)	X	
	: Reset All Controllers	*2 *3 (79H)	X	
	: Local On/Off	X	X	
	: All Notes Off	*2 *3 (7BH)	X	
	: Active Sensing	O	X	
	: System Reset	X	X	
Notes		* 1 When PREVIEW is transmitted. * 4 CABLE CHECK * 2 When PANIC is transmitted. * 3 If connection is broken.		

Mode 1 : OMNI ON, POLY   Mode 2 : OMNI ON, MONO   O : Yes
Mode 3 : OMNI OFF, POLY   Mode 4 : OMNI OFF, MONO   X : No

Specifications

USB MIDI Interface / MIDI PATCHER:

UM-550:

Connectors
MIDI connectors (In: 5, Out: 5)
USB connector (Rear, USB TYPE B)
Power Supply
DC 9 V (AC adaptor)
Current Draw
350 mA
Dimensions
11-1/16 (W) x 9-5/8 (D) x 1-13/16 (H) inches
280 (W) x 244.5 (D) x 46 (H) mm
Weight
1.5 kg /3 l bs 5 oz
Accessories
CD-ROM
Owner's manual
Function list
AC adaptor
USB cable
Rack-mount adaptor
Desk-stand mount

UM-880:

Connectors
MIDI connectors (In: 8, Out: 8)
USB connector (Front / Rear, USB TYPE B)
Power Supply
AC117, 230 or 240V
Power Consumption
8 W
Dimensions
19 (W) x 8 (D) x 1-3/4 (H) inches
482 (W) x 201.8 (D) x 44 (H) mm
Weight
2.4 kg / 5 lbs 5 oz
Accessories
CD-ROM
Owner's manual
Function list
Power cable
USB cable

* *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 nearest EDIROL/Roland Service Center or authorized EDIROL/Roland distributor in your country as shown below.

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As of December 10, 2005 (EDIROL-1)