

Welcome to the MU10

Congratulations and thank you for purchasing the Yamaha MU10 Tone Generator!

The MU10 is a sophisticated, yet highly compact **MIDI tone generator**, specially designed for use with computers and MIDI music systems.

With the **built-in host computer interface** and **MIDI terminals**, the MU10 is ideal for any computer music system — from connection to a simple laptop to integration in a complete MIDI studio. The host computer interface is especially convenient, allowing you to directly connect it to your computer without the need for a special MIDI interface.

Featuring Yamaha's high quality AWM2 tone generation technology, the MU10 has **676 Normal Voices** and **21 Drum Voices** (percussion sets), with full **General MIDI compatibility** — including Yamaha's new **XG-MIDI**. It provides **16-Part multi-timbral capacity** and full **32-note polyphony** for playback of even the most sophisticated song data. Three independent **digital effect sections** — with 11 types of Reverb, 11 types of Chorus, and 43 different Variation effects — can be used simultaneously and give you enormous versatility in “sweetening” the sound. Plus, the MU10 has two convenient **A/D INPUT jacks**, allowing you to connect external audio sources (such as a microphone, guitar, or CD player), and mix those sources with the AWM2 Voices of the MU10.

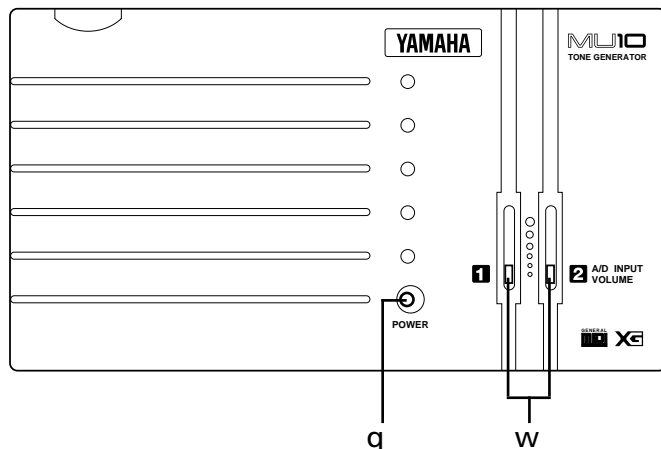
Because of all the above, as well as its exceptionally **portable size** and convenient **battery/AC adaptor power supply**, the MU10 is an invaluable tool for all MIDI musicians and performers.

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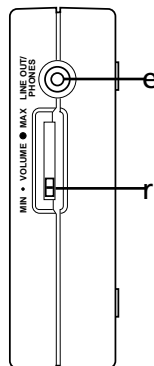
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Panel Controls and Terminals

Top Panel



Side Panel



q POWER lamp

Lights when power is turned on. Also, flashes to indicate reception of MIDI Note On messages and System Exclusive data. Also, flashes slowly when battery power becomes too low for proper operation.

w A/D INPUT VOLUME controls (1, 2)

For control of the A/D INPUT audio level.

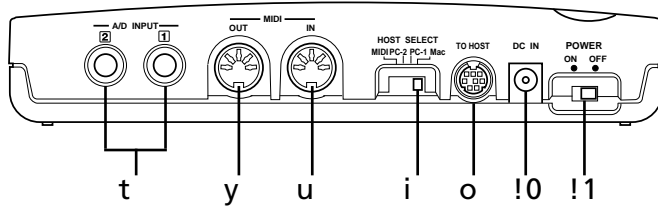
e LINE OUT/PHONES jack

For connection to a set of stereo headphones, or an external amplifier/speaker system (stereo mini plug). (See page 17.)

r VOLUME control

Adjusts the overall volume of the MU10.

Rear Panel



t A/D INPUT jacks (1, 2)

For connection of external audio sources, such as microphone, guitar, or CD player (mono 1/4" plug). When using only one input source, be sure to connect it to the A/D INPUT 1 jack. (See page 18.)

y MIDI OUT terminal

For connection to other MIDI devices, such as a MIDI keyboard or tone generator. Used to relay data received via the TO HOST terminal.

u MIDI IN terminal

For connection to other MIDI devices, such as a MIDI keyboard, sequencer, or to a computer via MIDI interface. When the HOST SELECT switch is set to MIDI, the received data is sent to the internal tone generator. When the HOST SELECT switch is set to PC-1, PC-2, or Mac, the received data is directly sent to the TO HOST terminal, bypassing the internal tone generator. (See page 14 – 16.)

i HOST SELECT switch

For selecting the type of host computer, or (when set to MIDI) normal MIDI operation. Available settings are: MIDI, PC-2 (IBM PC/AT and compatible computers), PC-1 (NEC PC 98 computers; for use in Japan), and Mac (Macintosh). (See page 15 – 16.)

o TO HOST terminal

For connection to a host computer. Use an appropriate serial interface cable according to the type of host computer. (See page 15.)

!0 DC IN jack

For connection to a PA-3B, PA-1207 or equivalent AC power adaptor.

!1 POWER switch

For turning the power on and off. Turning the power on automatically sets the MU10 to the XG mode and initializes all settings and parameter values.

The MU10 — What It Is and What It Can Do

What It Is

The MU10 is a compact, highly portable MIDI tone generator, designed especially for use with computers and MIDI music systems. Specifically, it is a high-quality XG- and GM-compatible tone generator, with 676 Voices and 21 drum Voices (percussion sets). The tone generator can be played either from an external MIDI device (such as a keyboard or a sequencer) or a computer. The MU10 also includes three independent digital effect sections — with 11 types of Reverb, 11 types of Chorus, and 43 different Variation effects — for enhancing the sound of the Voices.

The MU10 features a built-in host computer interface, allowing you to directly connect it to your Macintosh or IBM PC/AT (and compatible) computer—eliminating the need of installing a special MIDI interface to your computer. With the proper sequencing software on the computer, the MU10 can be used for both recording and playing back of sequencer data. The internal tone generator also allows for comprehensive control over all Voice and effect parameters — via incoming system exclusive messages, transmitted from a sequencer or other MIDI device. (Refer to the MIDI Data Format section on page 25 for details on controlling various MU10 parameters.)

The MU10 also features two convenient **A/D INPUT jacks**, allowing you to connect external audio sources and mix those sources with the Voices. Moreover, the built-in effects can be applied to the external sources as well as the internal AWM2 Voices.

The MU10 is also the latest instrument in the Yamaha line to support the XG format, a new addition to the General MIDI standard. In short, XG provides for more instrument sounds and variations, and greater expressive control over voices and effects.

What It Can Do

Here are a few application ideas on how you can use the MU10. The list below is not comprehensive, but is meant to be a general guide to the possibilities and provide a starting point or springboard for your own creative ideas and explorations.

■ Using in a MIDI Music System

Connect the MU10 to a computer with MIDI sequencing software, and you've got comprehensive music making power—for recording, composing, arranging, practicing, and editing. Combine it with a laptop computer, and you've got a complete and portable music production system that's ready to go wherever you go. The built-in A/D Inputs let you connect an external audio source (such as a microphone or guitar), allowing you to play along with the MIDI tracks.

The MU10 is an ideal addition to larger MIDI studios as well, since it gives you a high-quality 16-Part multi-timbral tone generator.

■ Multimedia

Since it's portable and compatible with the XG and General MIDI formats, the MU10 is a natural for multimedia applications. Because of its portability and great sound, it's the only tone generator you'll need for recording, editing and playing back MIDI data on your multimedia creations.

■ Using With a MIDI Keyboard in Live Performance

Simply connect the MU10 to a MIDI keyboard and play the dynamic Voices in live performance situations. With the built-in A/D Inputs, you can even use the MU10 as a simple 2-channel mixer. Bring a computer or MIDI data player to your gig, and you can even mix another instrument (such as guitar or bass) with the MIDI-driven Voices of the MU10.

Setting Up Your MU10

Setting Up the MU10 in Your Music System

Whatever your system, you should follow the basic instructions in this section when setting up your MU10. Use the example illustrations as a general guide when making the connections with your own system.

Power Supply

Your MU10 will run either from an optional AC adaptor or batteries. Whenever possible, you should use the AC adaptor, since the MU10 runs only for a short time on battery power (approximately two hours and twenty minutes on alkaline batteries).

■ NOTE

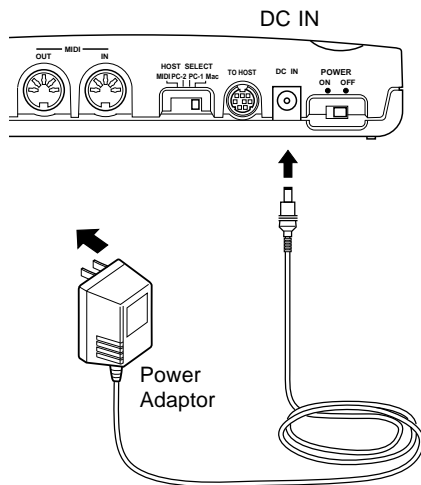
- Before making any connections, make sure that all equipment to be connected is turned off.

■ Using a Power Adaptor

Connect one end of the power adaptor (optional Yamaha PA-3B, PA-1207, or equivalent) to the DC IN jack on the rear panel, and the other end to a suitable electrical outlet.

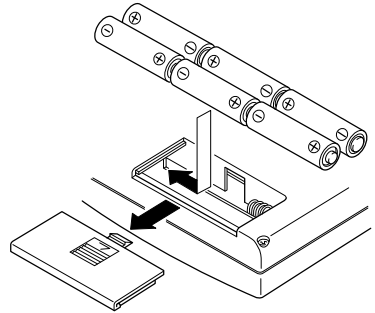
■ CAUTION

- Do not attempt to use an AC adaptor other than the PA-3B, PA-1207, or equivalent. The use of an incompatible adaptor may result in irreparable damage to the MU10, and even pose a serious shock hazard. (The recommended power adaptor may vary, depending on your location. Please consult your nearest Yamaha dealer for details.)
- Be sure to disconnect the power adaptor from the outlet when the MU10 is not in use for an extended period of time or during electrical storms.



■ Using Batteries

To use the MU10 on battery power, remove the battery compartment cover (as shown at the right) and insert six 1.5V AA size (SUM-3, R-6 or equivalent) manganese or alkaline batteries in the battery compartment. Make sure to follow the polarity indications on the bottom case.



Securely replace the battery compartment cover when finished installing the batteries.

■ When to Replace the Batteries

When the battery power runs too low to properly operate the MU10, the POWER lamp will flash slowly. When this happens, replace all batteries with a complete set of six new batteries of the same type.

■ CAUTION

- *NEVER mix old and new batteries or different types of batteries! Also, to prevent possible damage due to battery leakage, remove the batteries from the instrument if it is not to be used for an extended period of time.*
- *The MU10 has no memory backup function. Turning the power off will automatically initialize all settings and parameter values.*

Connections

In this section you'll learn how to set up your MU10 with a computer or with another MIDI device. You'll also learn how to connect the MU10 with audio equipment.

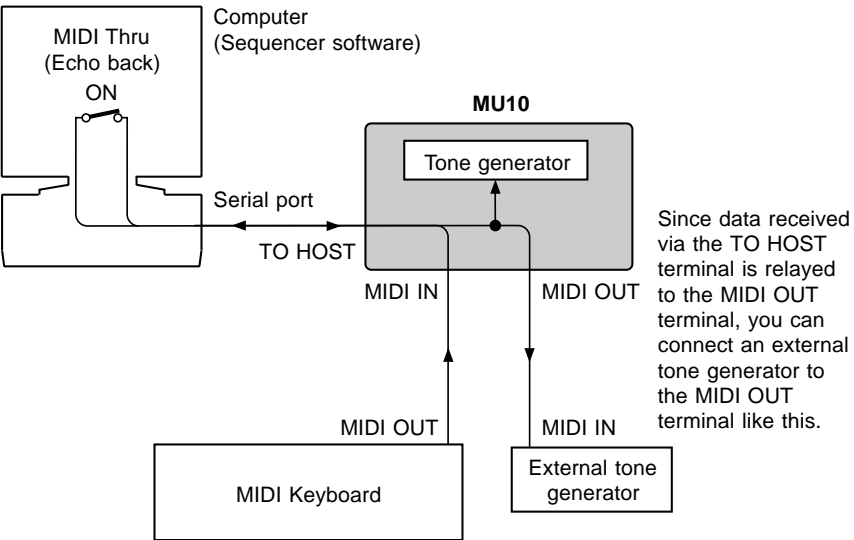
- **CAUTION**
- Turn off all devices before making connections.

Connecting With a Computer

You can connect the MU10 with your computer in one of two ways: 1) direct (computer port — TO HOST terminal), or 2) via MIDI interface.

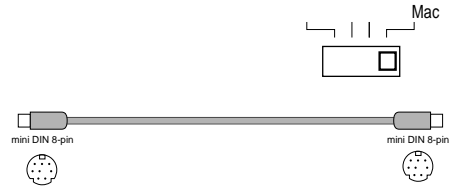
■ Direct Connection

Whatever computer you use, the connections are basically the same. However, the cable you use and the HOST SELECT switch setting differ according to the computer type. Other settings on the connected computer may be required as well. (Refer to the owner's manuals of your particular computer and music software for more information.)



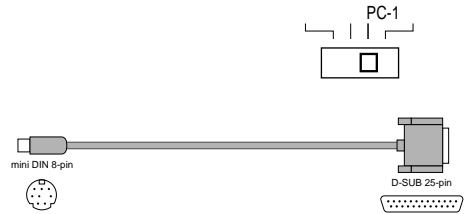
● Macintosh

Connect the TO HOST terminal of the MU10 to the Modem (or Printer) port of the computer with an optional Apple Macintosh peripheral cable (M0197), then set the HOST SELECT switch to **Mac**. Also, set the MIDI interface clock to 1 MHz.



● PC98

Connect the TO HOST terminal of the MU10 to the serial port of the PC98 computer with an optional 8-pin MINI DIN to 25-pin D-SUB cable, then set the HOST SELECT switch to **PC-1**.



● IBM PC/AT and Compatibles

Connect the TO HOST terminal of the MU10 to the serial port of the IBM PC/AT (or compatible) computer with an optional 8-pin MINI DIN to 9-pin D-SUB cable, then set the HOST SELECT switch to **PC-2**.



If you use an 8-pin MINI DIN to 25-pin D-SUB cable, connect a 25-pin to 9-pin plug adaptor to the D-SUB end of the cable.

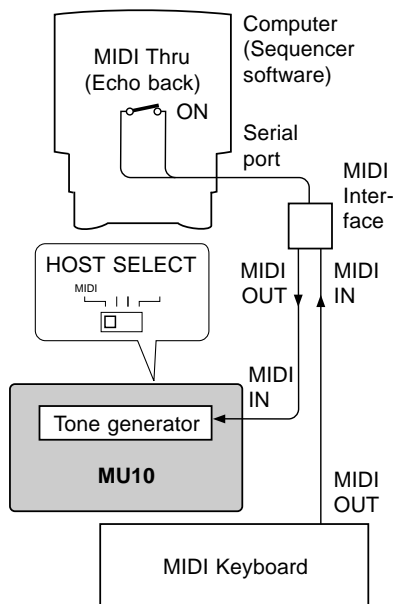


■ Connecting to a Computer With a MIDI Interface

Connect the MIDI IN terminal of the MU10 with the MIDI OUT terminal on the MIDI interface as shown at the right, then set the HOST SELECT switch to **MIDI**.

■ NOTE

- If you are using a Macintosh computer, you may need to set the MIDI interface clock to an appropriate value. (Refer to the owner's manual of your particular music software.)
- When the HOST SELECT switch is set to MIDI, data received via the TO HOST terminal is ignored.

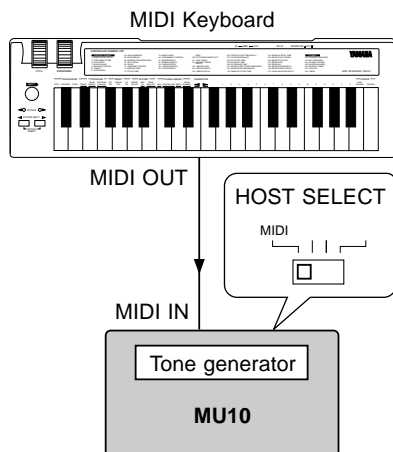


Connecting With a MIDI Device

The MU10 can be integrated into any MIDI system in a variety of ways. In the example connection shown at the right, the MU10 is being played from a MIDI keyboard. Connect the MIDI IN terminal of the MU10 with the MIDI OUT terminal on the MIDI keyboard, set the HOST SELECT switch to MIDI, and set the MIDI transmit channel on the keyboard to the desired value. (Refer to the owner's manual of that device for details.)

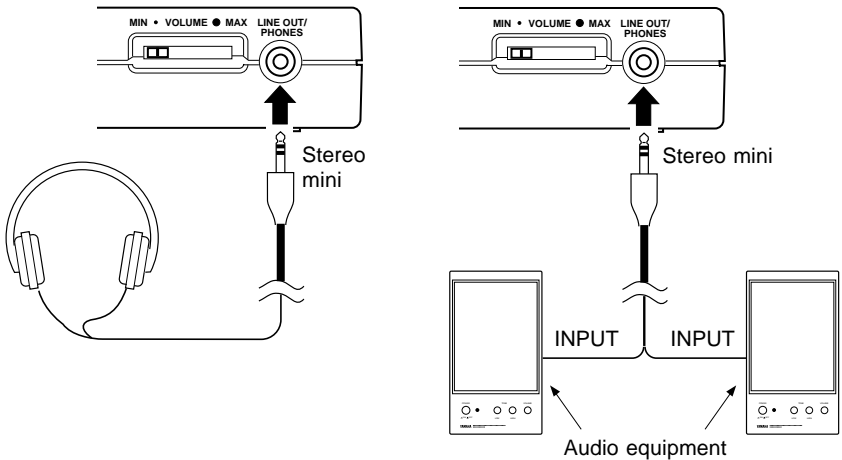
■ NOTE

- MIDI channel 10 on the MU10 is automatically set to play the drum Voices.



Connecting to Audio Equipment

In order to hear the sounds of the MU10, you must connect it to a set of stereo headphones or an amplifier/speaker system. Connect the headphones or audio cable to the stereo mini jack on the side panel. The particular cable that you use depends on your audio equipment. (In most cases this would be a stereo mini/dual RCA-pin cable or a stereo mini/stereo mini cable.)



■ CAUTION

- After making connections, turn down the volume controls on all devices, then turn on the power of each device in the following order:

- 1) External MIDI device or computer
- 2) MU10
- 3) Audio equipment

When turning off the power, simply reverse the order. This is done to avoid damaging any of the equipment and connected speakers (as well as your ears!).