Roland

MIDI PROCESSING UNIT

MPU-IPC

Warning

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. Only Computer certified to comply with the Class B limits may be attached to this equipment. Operation with non-certified computing device is likely to result in interference to radio and TV reception.

Radio and Television Interference

The equipment described in this manual generates and uses radio-frequency energy. If it is not installed and used properly, that is, in strict accordance with our instructions, it may cause interference with radio and television reception.

This equipment has been tested and complies with the limits for a Class B computing device in accordance with the specifications in Subpart J, Part 15, of FCC rules. These rules are designed to provide reasonable protection against such iunterference in a residential installation. However, there is no guarantee that the interference will not occur in a particular installation, especially if you use a "rabbit ear" television antenna. (A "rabbit ear" antenna is the telescoping-rod type usually contained on TV receivers.)

You can determine whether your computer is causing interference by turning it off. If the interference stops, it was probably caused by the computer or its peripheral devices. To further isolate the problem:

● Disconnect the peripheral devices and their input/output cables one at a time. If the interference stops, it is caused by either the peripheral device or its I/O cable. These devices usually require shield I/O cables. For Roland peripheral devices, you can obtain the proper shielded cable from your dealer.
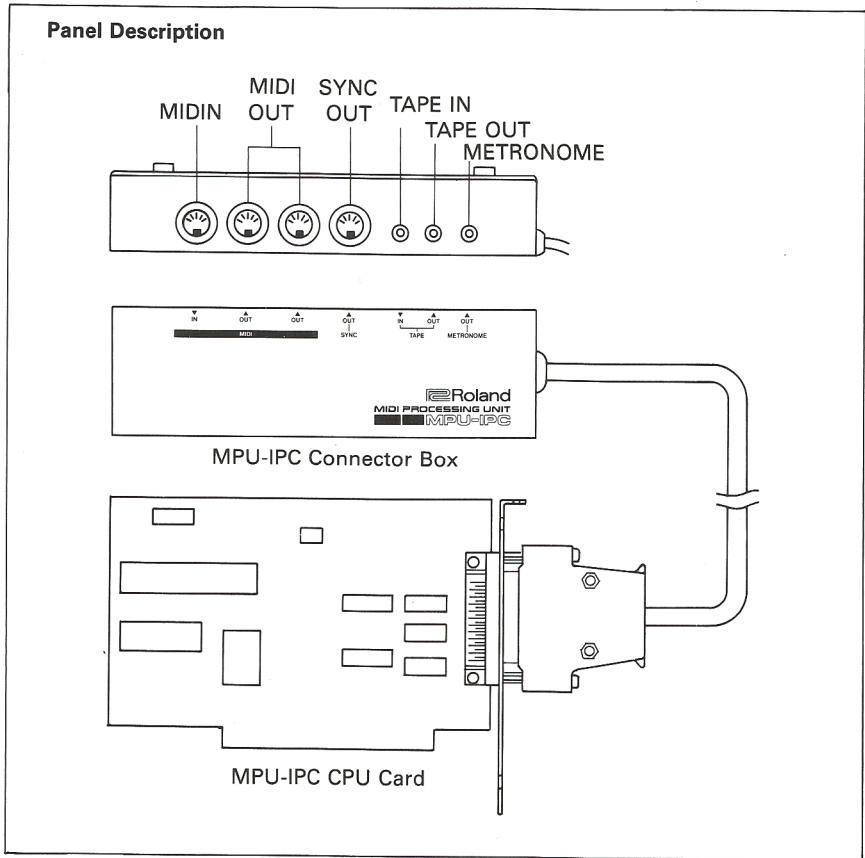
If your computer or its peripheral devices does cause interference to radio or television reception, you can try to correct hte interference by using one or more of the following measures:

● Turn the TV or radio antenna until the interference stops.

● Move the computer or its peripheral device to one side or the other of the TV or radio.

● Move the computer or its peripheral devices farther away from the TV or radio.

● Plug the computer or its peripheral devices into an outlet that is on a different circuit than the TV or radio. (That is, make certain the computer or its peripheral devices and the radio or television set are on circuits controlled by different circuit breakers or fuses.)

● Consider installing a rooftop television antenna with coaxial cable lead-in between the antenna and TV.

If necessary, you should consult your dealer or an experienced radio/television technician for additional suggestions. You may find helpful the following booklet, prepared by the Federal Communications Commision:

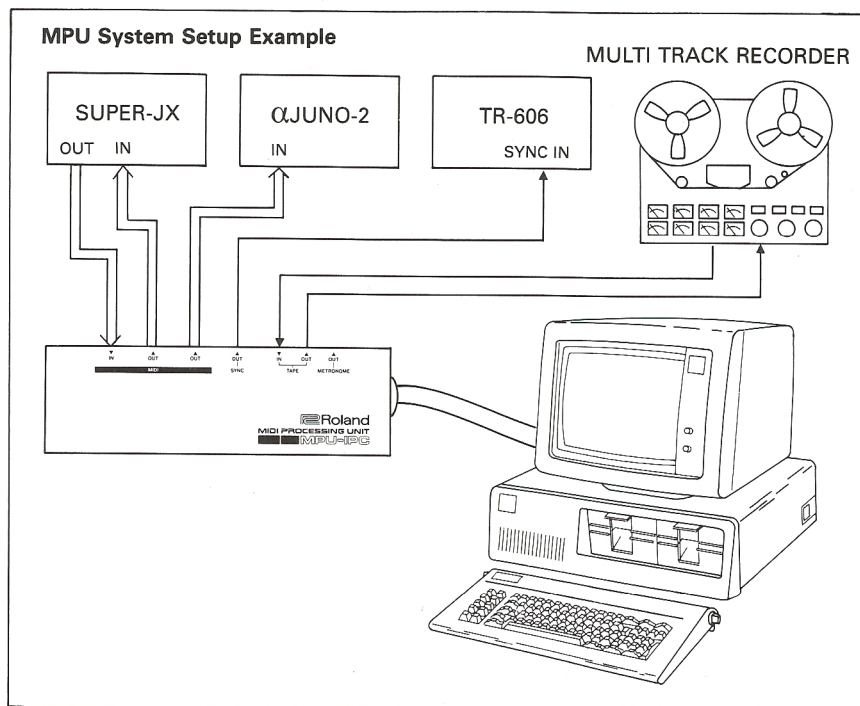"How to Identify and Resolve Radio-TV Interference Problems"

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, stock number 004-000-00345-4.

Panel Description

MIDIN MIDI OUT SYNC OUT TAPE IN TAPE OUT METRONOME

IN OUT OUT OUT IN OUT OUT
MIDI SYNC TAPE METRONOME

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MPU-IPC

MPU-IPC Connector Box

MPU-IPC CPU Card

■ MIDI and MPU-IPC

There are various ways of producing music by using computers. For example, a computer may play music data with its own sound source, and a robot may play the keyboard instead of a man. The most common method of creating computer music, however, is playing th electronic musical instruments featuring MIDI by a host computer. MIDI (Musical Instruments Digital Interface) is an international standard for digitally communicating musical information (e.g. pressing keys, using bender, etc.).

MIDI Processing Unit MPU-IPC is an interface for a computer and MIDI instruments (sound source). The signals used by computers and MIDI devices are both digital but totally different languages like English and Japanese. The MPU-IPC is a micro computer that works as an interpreter of a computer and MIDI sound modules, allowing the host computer to concentrate specifically on the music.

MPU System Setup Example

MULTI TRACK RECORDER

SUPER-JX	αJUNO-2	TR-606
OUT IN	IN	SYNC IN

IN   OUT   OUT   OUT   IN   OUT   OUT
MIDI   SYNC   TAPE   METRONOME

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MPU-IPC

Apart from the function as an interpreter, the MPU-IPC features the following functions.

a. MIDI Clock Output

The MPU-IPC sends out MIDI clock for synchronization with a rhythm machine through the MIDI OUT Connector.

b. SYNC Signal Output (SYNC 24)

The MPU-IPC also sends the signal (SYNC24) which synchronizes with the above MIDI Clock, enabling the device with DIN SYNC connector to synchronize.

c. Tape Sync Function

For multitrack recording, the TAPE IN and OUT Connectors can be used to synchronize the first recorded sound with the later recorded one.

d. Metronome Function

Metronome sound cna be obtained in the tempo and time set with the computer. This is extremely useful for recording the music played on the keyboard into the computer. If you find the metronome sound too small, connect a monitor amplifier to the Metronome Out Jack.

NOTE

The function of the MPU-IPC available differs depending on the software used. Please read the instructions of each software. Also, for technical details of the MPU-IPC, read the Technical Reference Manual.

■ Setup

The MPU-IPC is compatible with the following computers.

IBM PC (5150)
IBM XT (5160)
IBM AT (5170)

1. Make sure that the computer is turned off.

2. Remove the top cover and securely attach the Interface Card to the Expansion Slot.
   - See the user's manual of the computer.
   - Be sure to tighten the screws at the upper part of the connector board of the CPU Card.

3. Connect the cable of the Connector Box to the CPU Card you have attached to the computer. Here, be sure to tighten the screws on both ends of the connector.

   *IBM PC and IBM XT are trademarks of International Business Machines Corporation.
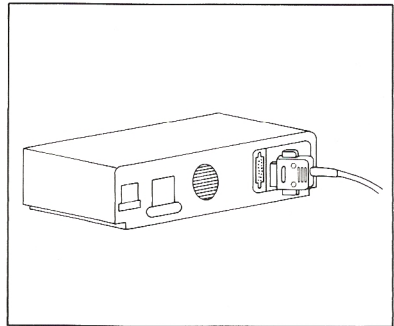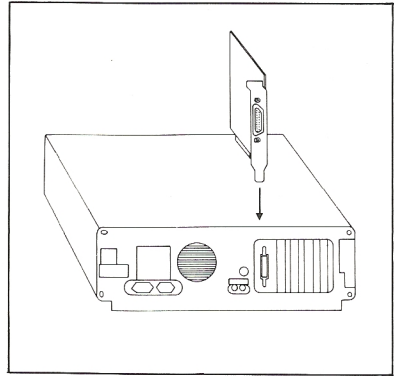
MPU-IPC I/O Port Address and Interruption Line

Data Port: 330h

Command Port: 331h

Status Port: 331h

Interruption Line: INT2 (AT=INT9)

■ Specifications

INPUT TERMINAL:

MIDI IN 1
MIDI OUT 2
SYNC OUT 1
TAPE IN 1
TAPE OUT 1
METRONOME OUT 1
COMPUTER BUS CONNECTOR ... 1

Dimensions: Connector Box: 165(W) × 50(D) × 31(H)mm
6½" × 1¹⁵⁄₁₆" × 1¼"
CPU Card: 166(W) × 120(D) × 22(H)mm
6⁹⁄₁₆" × 4¾" × ⅞"
Weight: Connector Box: 410g/14oz (including the cable)
CPU Card: 100g/4oz