

# MOH 1600

USER MANUAL ▶



# MOH1600 User Manual

Edition : July 2007

Firmware Version : 1.05

All specifications, information contained herein, hardware and software of the product are subject to change without prior notice.

## **Caution:**

- Please read this manual thoroughly before operating the unit and retain it for future reference.
- To prevent fire or shock hazard, do not expose this unit to rain or moisture.
- To avoid electrical shock refer servicing of this product to the dealer from whom the purchase was made.
- No user serviceable parts inside.

## **Static Discharge Warning:**

The discharge of electrostatic energy that accumulates on the surface of human body or other surfaces can disrupt the working of the unit or damage the electronic components inside the unit. Observe static safe procedures while handling, installing and maintaining the unit.

## **Safety:**

This product has been tested to comply with the International Safety standards as per IEC60950 and the relevant Australian / New Zealand standards.

## **Functional Description**

Welcome to your MOH1600—a USB MP3 Music on Hold player. The MOH 1600 plays music/messages recorded in .mp3 format to callers put on hold in your business. Updating the content in the MOH1600 is easy; just take a standard USB Flash Drive (pen drive/thumb drive/USB stick), insert it in to the MOH and the unit automatically installs the new content whilst deleting the old file.

The MOH1600 has a built-in non-volatile Flash memory, which is used to store the music/message file. The unit comes with 32 MB of Flash memory that may hold nearly 60 minutes of Hi-Fi music data in .mp3 format. The MOH1600 can playback MP3 files of sampling rates from 16 KHz @ 16Kbps to 48KHz @ 320Kbps.

The MOH1600 has a user accessible and removable memory cartridge, which may be used to upgrade the memory capacity or swap cartridges of the same capacity. The file and directory information is stored on the cartridge itself and hence even if a cartridge is swapped, the new content changes over seamlessly as per the new cartridge.

A Handset socket for audio monitoring, 8 ohms and 600 ohms outputs for connections to the PBX ensure quick installation. The audio outputs ( $8\Omega/600\Omega$ ) are available on RCA sockets, which facilitate quick connection and disconnection of the output cable.

## **Installation**

Unpack the unit from its shipping carton and check that all the materials have been received in good condition. Any damages or shortfalls must be reported immediately to the dealer from whom the purchase was made. Your MOH1600 shipping carton must contain the following:

**The MOH1600 Unit**

**Power Adaptor**

**User Manual**

**Audio Output cable**

**USB Flash Drive (optional)**

- Select a suitable location for the MOH1600 to be placed. The unit may be wall mounted or kept on the tabletop. The suitable location should have a power socket close by and should be easily accessible for any service or maintenance work. If you plan to mount the unit on the wall please follow the wall mounting instructions given below:
- Use the paper template, provided with the unit, and secure two wood screws (Size 5 or 6) into the wall where you want to mount the unit. The distance between the center points of the mounting screws should be  $6\frac{1}{8}$  inches (Approx. 155mm). The wall on which the unit is to be mounted should be strong enough to support the weight of the unit. Also make sure that the screws are driven securely into the wall. Then, hang the unit onto the screws.
- Connect the appropriate "Music Out" of the MOH1600 to the "Music IN" of your PBX.

**Note:** The  $8\ \Omega$  and the  $600\ \Omega$  "Music Out" terminals should only be connected to the "Music In" terminals of a PABX that has isolation from TNV circuits.

- Insert the power adaptor into the power socket and insert the other end (Plug) into the power input connector provided on the MOH1600. Switch ON the power to the unit. Both the Red USB and the Green PLAY lamps blink a couple of times and then the unit enters the regular Play mode as indicated by the Green PLAY lamp blinking on and off twice a second.

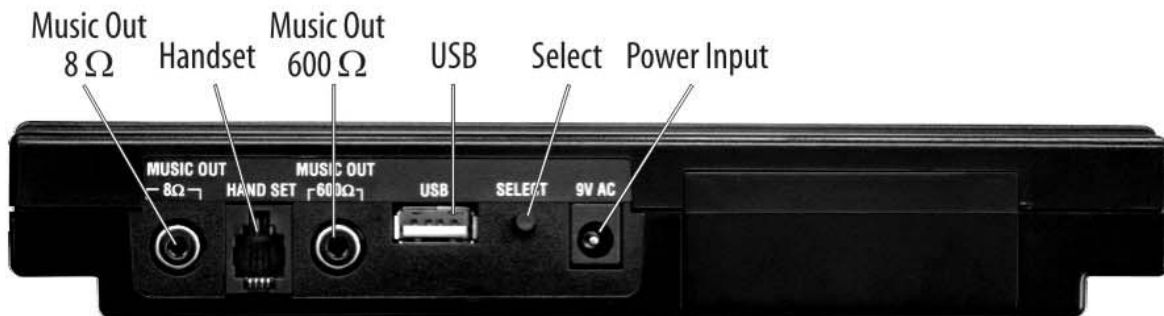
If there is no content file in the memory, the Red lamp will glow continuously for a second and blink briefly for about 0.1 second to indicate that there is no content file to play.

**Caution:** Please ensure that the Voice Cartridge is inserted into the MOH1600 before connecting the power to the unit.

## Precautions:

Do not install this unit where it would be subjected to:

- Direct sunlight, moisture or rain
- Heat sources, Radiators, Air Ducts etc.
- Draft from an air conditioner
- Excessive dust or corrosive fumes
- Mechanical shock or vibration
- In the vicinity of a communication tower



## Using the MOH1600

The MOH1600 supports the USB-Host mode of operation which enables the user to insert a USB Flash Drive to copy a new content file. This eliminates the need to take the unit to the PC to transfer the audio content file.

### Transferring audio content files into the unit:

The MOH1600 is normally in the MP3 file playback mode after power-up. To switch to the Host mode, locate the 'SELECT' switch on the rear panel and keep it pressed for about 3 seconds until the PLAY lamp stops glowing. Release the 'SELECT' switch at this point and the red USB lamp also starts glowing continuously along with the green PLAY lamp.

Now insert a USB Flash Drive, with the new MP3 file, into the USB socket on the rear panel.

The unit detects the USB Flash Drive and the green lamp goes off when the drive is detected. The unit checks for a MP3 file stored in the root directory and copies the file into its internal memory whilst deleting the old file. When the file is being copied, the red lamp

blinks at a very fast rate and then becomes steady momentarily when the file is copied fully.

The unit automatically reverts to the play back mode when the file is copied. The red USB lamp goes off, the green PLAY lamp starts blinking and the new content file starts to play. You may remove the USB Flash Drive at this point.

**Note:**

1. If the root directory of the disk drive contains other non-MP3 files, they will not be copied into the memory of the unit.
2. If the Memory cartridge is removed and the power is applied to the unit, the Green PLAY lamp and the Red USB lamp will remain OFF to indicate that there is no Memory cartridge.

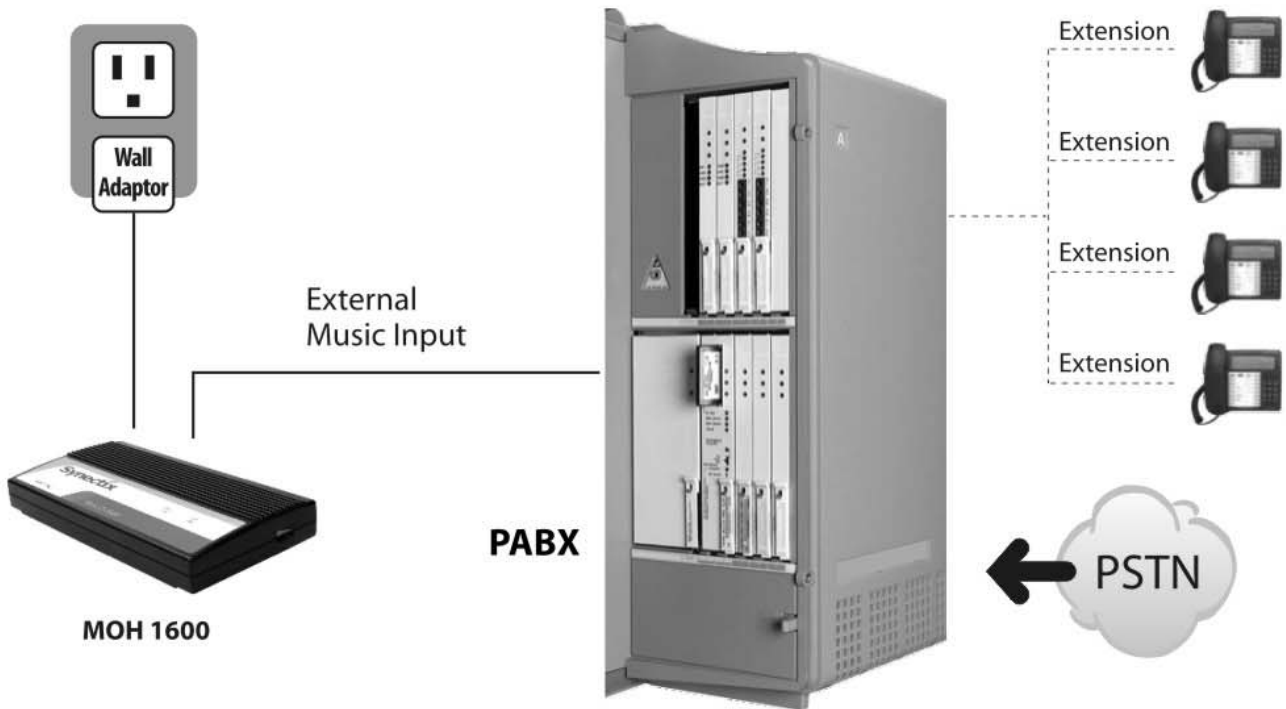
MP3 File sampling rates and durations:

Sampling Rate	Approx. File size of 1 min. play duration	Total playing time for 32 MB memory
16 Kbps	120 KBytes	270 Minutes
32 Kbps	235 KBytes	135 Minutes
64 Kbps	460 KBytes	68 Minutes
128 Kbps	900 KBytes	35 Minutes
256 Kbps	1.7 KBytes	18 Minutes
320 Kbps	2.1 KBytes	14 Minutes

**Specifications**

Power supply	Through wall adaptor: 9V AC $\pm$ 10%, 1W
Memory	32 MB
Memory type	Flash Memory, non-volatile storage
Indicators	Play and USB Lamps (LEDs)
Output	Both 8 $\Omega$ and 600 $\Omega$ available
Volume Control	Provided at the right side of the unit
Mounting	Wall or Desktop
USB Port	USB 2.0 High Speed Device Mode compliant USB 2.0 Full Speed Host Mode compliant

# Connection Diagram





## Statutory Information

### FCC Information:

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

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

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

This Class A digital apparatus meets all the requirements of the Canadian Interference causing Equipment Regulation.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.



This product complies with the requirements of the following European Directives: The EMC Directive 89/336/EEC; the Low Voltage Directive 73/23/EEC, both amended by the Directive 93/68/EEC.

### Limited Warranty:

See the Limited Warranty Card supplied along with this unit for details.

Shipping the unit for repairs/replacement during or after the warranty period:

Before shipping ensure that the product is packed in either the original shipping carton or in a well-padded, heavy duty corrugated box to prevent damage to the unit in transit. Enclose a copy of your sales invoice (proof of purchase) and ship the unit freight prepaid and insured for a replacement value.