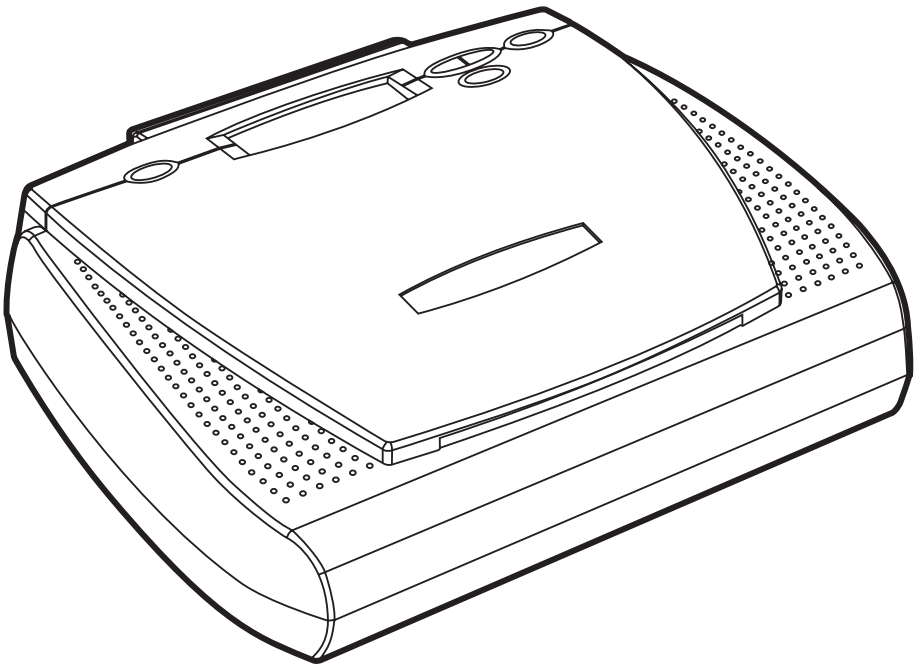




## Music On-Hold Plus



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**CUSTOMER  
SUPPORT  
INFORMATION**

Order toll-free in the U.S.: Call **877-877-BBOX** (outside U.S. call **724-746-5500**)  
FREE technical support 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**  
Mailing address: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018  
Web site: [www.blackbox.com](http://www.blackbox.com) • E-mail: [info@blackbox.com](mailto:info@blackbox.com)

## **WARNING**

To prevent fire or electrical shock, do not expose the unit to rain or moisture. **DO NOT** open the cabinet—**YOU MIGHT GET SHOCKED**. Refer servicing to qualified service personnel only.

When the unit is used with an AC power adapter, **DO NOT** wrap the unit in a cloth, blanket, etc. If you do, the temperature inside and outside the unit may rise considerably, and **YOU MIGHT GET SHOCKED OR BURNED**.

## **WARNING**

**NEVER** attempt to service the Music On-Hold Plus yourself. The laser beam used in this compact disc player may cause permanent damage to your eyes. Refer servicing to qualified personnel only.

**DO NOT** use optical instruments with this product. **IT COULD DAMAGE YOUR EYES**.

Do not put any foreign objects in the safety slot inside the disc compartment. If you do, the laser beam could come out when you open the lid.

Do not put any foreign objects in the DC IN 6V (external power input) jack. If any solid object or liquid falls into the unit, disconnect the power supply and have qualified service personnel check the unit for safety before operating it any further.

## **CAUTION**

Since the CD system offers a wide dynamic range, the peaks of the high input level inputs are recorded with high fidelity, and the noise level is very low. **DO NOT** turn up the volume while listening to a part of the disc with no audio signals or very low-level inputs. If you do, the speakers may be damaged when the peak level of the sound plays.

Keep the lens on the disc table clean. Do not touch the lens with your finger or foreign objects. If you do, the lens may be damaged and the unit will malfunction.

If you bring the unit directly from a cold to a warm location or place it in a damp room, moisture may condense on the lens inside the unit. If this happens, the unit will not operate. Remove the disc and leave the unit in a warm place for several hours until the moisture evaporates.

For the unit to operate at its best, do not subject it to temperatures below 41°F (5°C) or above 95°F (35°C).

### FEDERAL COMMUNICATIONS COMMISSION and INDUSTRY CANADA

#### RADIO FREQUENCY INTERFERENCE STATEMENTS

**Class B Digital Device.** This equipment has been tested and found to comply with the limits for a Class B computing device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular 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. If this equipment does cause harmful interference to radio or telephone reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an experienced radio/TV technician for help.

#### **Caution:**

**Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

To meet FCC requirements, shielded cables and power cords are required to connect this device to a personal computer or other Class B certified device.

*This digital apparatus does not exceed the Class B limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.*

*Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe B prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.*

## **NORMAS OFICIALES MEXICANAS (NOM) ELECTRICAL SAFETY STATEMENT**

### **INSTRUCCIONES DE SEGURIDAD**

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc..
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.

12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energía.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
  - A: El cable de poder o el contacto ha sido dañado; u
  - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
  - C: El aparato ha sido expuesto a la lluvia; o
  - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
  - E: El aparato ha sido tirado o su cubierta ha sido dañada.

### TRADEMARKS USED IN THIS MANUAL

*Any trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.*

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# 1. Specifications

**System Requirements and Compatibility**—Phone system must be KSU or BPX

**Memory**—8 minutes standard record time upgradeable to 32 minutes

**Indicators**—LCD panel

**Connectors**—(1) RCA female, (1) 3.5-mm jack for power

**Power**—Input: 120 VAC, 60 Hz, 20 W; Output: 23 VDC, 1000 mA

**Size**—2"H x 10.6"W x 8.7"D (5.1 x 26.9 x 22.1 cm)

**Weight**—2.4 lb. (1.1 kg)



## 2. Introduction

### 2.1 Description

The Music On-Hold Plus is easy to use and simple to understand. Just drop in a single-track CD and close the lid. The Music On-Hold Plus spins the disc and records it into digital flash memory. Playback begins immediately. Or, you can also record tracks individually.

The Music On-Hold Plus comes with an 8-minute recording capability, and can be upgraded in 8-minute increments up to 32 minutes. Simply lift a door to add memory modules.

### 2.2 Features

- **Digital flash memory:** Design retains music/message content even during power loss. The Music On-Hold Plus ships with preloaded audio.
- **Integrated CD mechanism:** Quickly and easily record high-quality audio. CD media is easy and inexpensive to duplicate and distribute.
- **CD Autoload:** Drop in a CD with a single track, close the lid, and the Music On-Hold Plus automatically records the content.
- **Multi-Track Programmable:** Drop in a multi-track CD and choose which tracks and in what order to record.
- **LCD Control Panel:** Displays program length, time remaining in the Music On-Hold Plus's memory, and the unit's status.
- **Trigger switch:** The unit can be triggered to start program content from the beginning with an external trigger switch.
- **Optional Plug-In Analog Phone Adapter Module:** Connects to the Music On-Hold Plus's internal slot to add music on-hold to standard analog and KSU-less telephones with up to 4 lines and 50 station sets. Works with all types of phones, even cordless.
- **HoldTracks audio CD:** Choose new, royalty-free music from a pre-recorded audio CD featuring a variety of music styles.
- **CustomWorks CD-ROM:** A wizard for creating professional-sounding on-hold message scripts.

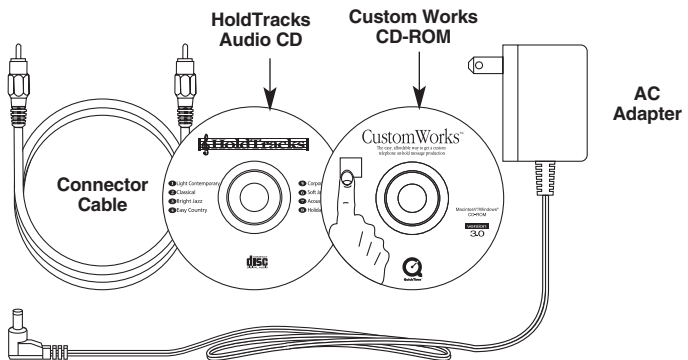
- **MessageStudio Software Compatible:** Works with award-winning MessageStudio software (available separately), which allows you to create new on-hold audio content on a PC and record directly into the Music On-Hold Plus's digital memory.
- **External Recording Capability:** Audio input allows you to record from any external audio source.
- **Built-in Monitor Speaker:** Allows you to monitor sound with the flip of a switch.
- **May be wall-mounted:** The Music On-Hold Plus can be mounted, played, and recorded in a vertical position.

### 2.3 What the Package Includes

Your package should include the following items:

- Music On-Hold Plus
- (1) 6-ft. (1.8-m) RCA male Connector cable
- AC adapter
- HoldTracks Audio CD
- CustomWorks CD-ROM

If anything is missing or damaged, contact Black Box at 724-746-5500.



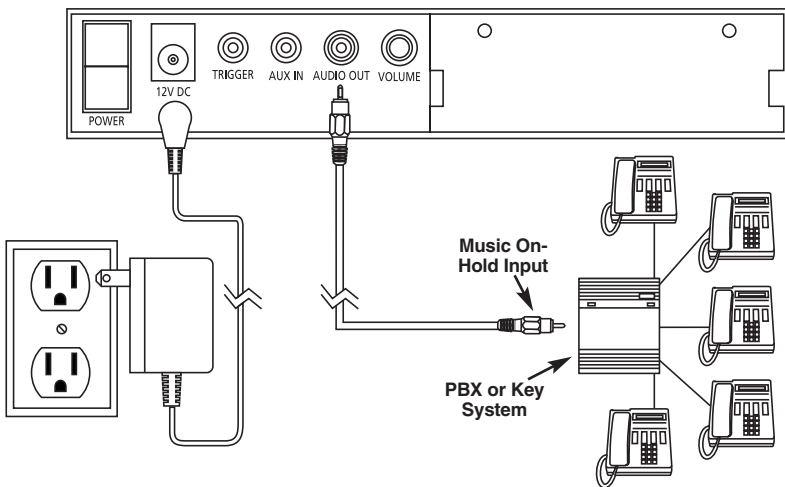
**Figure 2-1. Some of the included items.**

## 3. Installation

### 3.1 Connecting the Unit to PBX or Key Phone Systems

1. Plug the AC adapter into a wall outlet.
2. Plug the AC adapter cable into the jack marked “12 VDC.”
3. Plug the connector cable into the “AUDIO OUT” jack.
4. Plug the other end of the connector cable into the phone system’s music-on-hold (moh) jack.

Figure 3-1 illustrates this installation.



**Figure 3-1. Connecting to PBX or Key phone systems.**

### **NOTE**

If you cannot locate the music-on-hold jack, contact your phone vendor for information.

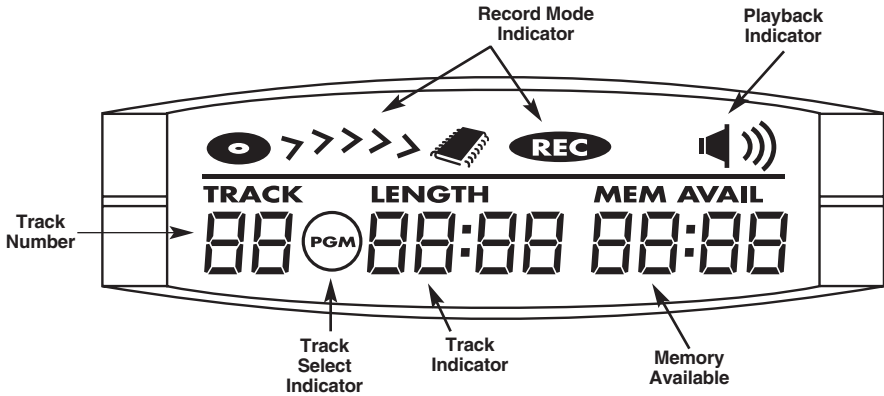
## **3.2 Connecting the Unit to Standard Analog or KSU-less Phones**

For connection to standard analog or KSU-less phones, call Black Box Technical Support at 724-746-5500.

# 4. LCD Display and Controls

## 4.1 LCD Display

Figure 4-1 illustrates the LCD panel on the Music On-Hold Plus.

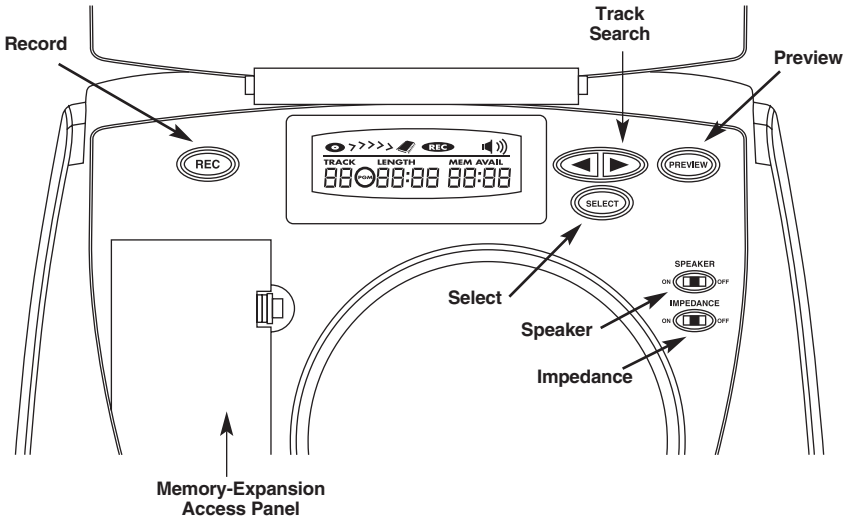


**Figure 4-1. LCD panel.**

- **Track Number:** Displays the CD track number during programming.
- **Track Select Indicator:** Displays when a track is selected for recording.
- **Track Indicator:** Displays the CD track length or running time when in “play” mode.
- **Memory Available:** Displays available recording time during programming.
- **Playback Indicator:** Displays when the unit is playing.
- **Record Mode Indicator:** Displays when audio is being recorded to memory.

## 4.2 Player Controls

Figure 4-2 shows the controls on the CD player.



**Figure 4-2. Player controls.**

- **Record:** Used to initiate recording from a multi-track CD.
- **Track Search:** Navigates forward and backward through tracks on the CD.
- **Preview:** Plays the selected audio track.
- **Select:** Designates the current track for recording.
- **Speaker:** Turns the speaker on or off.
- **Impedance:** Allows selection between 8- or 600-ohm audio output.
- **Memory Expansion Access Panel:** Remove the door to add memory modules for additional audio recording time.

# 5. Operation

## 5.1 Playback

### 5.1.1 PLAYING AUDIO STORED IN MEMORY

By default, the unit is always in playback mode. When the unit is playing, the LCD will display a running time and the segments on the speaker icon will move.

### 5.1.2 PLAYBACK AFTER POWER LOSS

If power to the unit is lost, the unit will resume playback as soon as power is reapplied. The unit retains its recorded content after power loss.

## 5.2 Recording

### 5.2.1 RECORDING SINGLE-TRACK CDS

1. Open the cover.
2. Insert the CD.
3. Close the cover.
4. Once the cover is closed, the unit will automatically begin recording the content of the track into the unit's digital memory. During the recording process, the contents of what is being recorded to memory will be heard through the speaker. The unit automatically switches over to "playback" mode when the recording is complete.

### 5.2.2 RECORDING MULTI-TRACK CDS

1. Open the cover.
2. Insert the CD.
3. Close the cover.
4. Use the "track search" buttons to navigate to the desired track.
5. Press the Select button. (To deselect a track, press the Select button again.)
6. Repeat steps 4 and 5 until you have selected all desired tracks or have used the unit's available memory.

7. Press the REC button to begin recording.
8. Once you press the Record button, the unit will begin recording the selected tracks into the unit's digital memory. During the recording process, the audio being recorded to memory will be heard through the speaker. The unit automatically switches over to "playback" mode when recording is complete.

### 5.2.3 PREVIEWING A TRACK ON A CD

1. Use the left-arrow or right-arrow buttons to navigate to a track.
2. Press the "Preview" button to start preview.
3. Press the "Preview" button again to stop the preview.

## 5.3 External Recording

1. Insert a 3.5-mm mini plug into the jack marked AUX in.
2. Press the REC button to begin recording.
3. Begin playback of your external source.
4. When finished, press the REC button again to stop recording.
5. Once you press the REC button, the unit will begin recording the content of external source audio into the unit's digital memory. During the recording process, the audio being recorded to memory will be heard through the speaker.

### NOTE

**You will not be able to record audio from the CD autoloader with the cable plugged into the AUX IN jack.**



## 6. Settings

### 6.1 Impedance Switch

The Impedance switch is located under the cover, on the right side of the unit, below the Speaker switch. Most telephone systems prefer an 8-ohm output. If you are working with an older phone system, you might prefer the 600-ohm setting.

### 6.2 Speaker Switch

The Speaker switch is located under the cover, on the right side of the unit, above the Impedance switch. To operate, turn the switch to the “ON” position to listen to program playing from digital memory. Audio being recorded plays through the speaker, regardless of the speaker switch position. The speaker switch position has no effect on AUDIO OUT playback.

### 6.3 Volume Control

The Volume Control switch is located on the rear panel of the unit. It controls the output level of the AUDIO OUT jack. To adjust the volume, turn the control knob clockwise to increase the sound. Set the proper volume level by calling in from a phone close to the unit (or cell phone) and having your call placed on hold.

### 6.4 Power Switch

The Power switch is located on the rear panel. It turns the power on or off. When power is on, the LCD is lit

# 7. Other Functions

## 7.1 Remote Trigger

The Remote Trigger 2.5-mm mini jack is located on the rear panel. To operate the Remote Trigger, connect a momentary switch to this jack. The unit will play audio content from memory when triggered. The content will play through once and then reset, ready for the next trigger sequence.

## 7.2 Auxiliary In

The Auxiliary In 3.5-mm mini jack is located on the rear panel next to the Trigger jack. To operate the Auxiliary In, connect the audio cable from the LINE OUT or “headphone out” jack of any external audio source to the AUDIO IN jack. Audio from an external source (CD, radio, tape, or PC) can be recorded to the unit’s memory without using the unit’s integrated CD.

## 8. Adding Additional Memory

### 8.1 Configuration

The Music On-Hold Plus comes with 8 minutes of flash memory. Memory can be expanded to 16, 24, or 32 minutes by adding memory modules in 8-minute increments (via the 8-Minute Memory Expansion Module, part number TE151). You can place memory modules into three available memory expansion slots located under the memory expansion access panel door.

### 8.2 Installing Memory

1. Turn the power switch to the OFF position.
2. Open the player lid.
3. Remove the memory expansion access panel door located to the left of the CD drive.
4. Carefully insert the 24-pin memory module chip in an open expansion slot (beginning at the top of the unit).
5. Turn the power switch to the ON position. The LCD will display the additional memory in the MEM AVAIL counter.



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