Lucent Technologies
Bell Labs Innovations

CIB 2871

(151A) Music-On-Hold/Paging Cartridge
Type II (6102)
(103979977)

CIB 2871
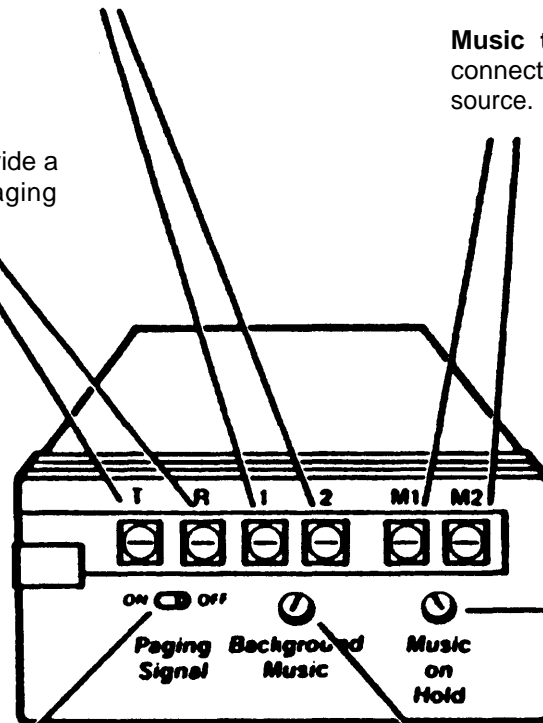# (151A) Music-On-Hold/Paging Cartridge, Type II
(6102)

The Music-on-Hold/Paging Cartridge, when connected to a user-provided music source, provides music for outside callers who are placed on hold (Figure 1). When a paging system is connected, it allows users to make paging announcements over the loudspeaker from their voice terminals and permits background music to play over the loudspeaker paging system for customers or employees. Use this cartride with a Model 206, 410, or 820 communications system.

Switched contact closure leads:
Provide switched contact closure connections for pagining systems that require them.

Music terminals: Provide a connection to your music source.

Paging terminals: Provide a connection to your paging system.

Music-on-Hold volume control: Allows you to adjust the volume of Music-on-Hold.

Paging Signal switch: When set to On, provides a paging signal tone before annoucements.

Background Music volume control: Allows you to adjust the volume or turn it off completely.

Figure 1
Music-on-Hold/Paging Cartridge

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Installing Your Music-on-Hold/Paging Cartridge

WARNING: Unplug the music source power cord. If you have a Model 206 or 410 control unit, unplug the control unit power cord from the ac outlet before insertlng or making any connections to the cartridge. If you have a Model 820 control unit, turn the On/Off switch to *Off.*

INSERTING THE CARTRIDGE

1. Open the control unit door.
2. Remove the plastic cover plate from the slot labeled Cartridge Type II by grasping the edge of the plate and pulling.
3. Slide the cartridge slowly and steadily into the open slot until it is firmly in place.

CONNECTING YOUR MUSIC SOURCE TO THE CARTRIDGE

Your music source has one or more types of connection, such as a head-phone jack, an earphone jack, a speaker jack, a phono jack, terminal screws, or a quick connection. If your music source has a jack connection, you need an adapter cord with two wires coming out of it to connect the music source to the cartridge. You can buy the adapter cord at an audio supply store. If your music source has two terminal screws, use the pair of 24-gauge wires provided with the cartridge.

Your music source can offer amplified or unamplified signals. A headphone jack or earphone jack supplies an unamplified signal. A speaker connection supplies an amplified signal. This cartridge can work with both types of signals, but it works best with an unamplified music signal.

Make sure your music source is operating property before you connect it to the cartridge. Depending upon the music source you have, connect your music source to the cartridge as follows:

1. Connect the wires to your music source:
   a. If your music source has a phono jack, a headphone jack, or an earphone jack, plug the adapter cord into the jack (Figure 2A).
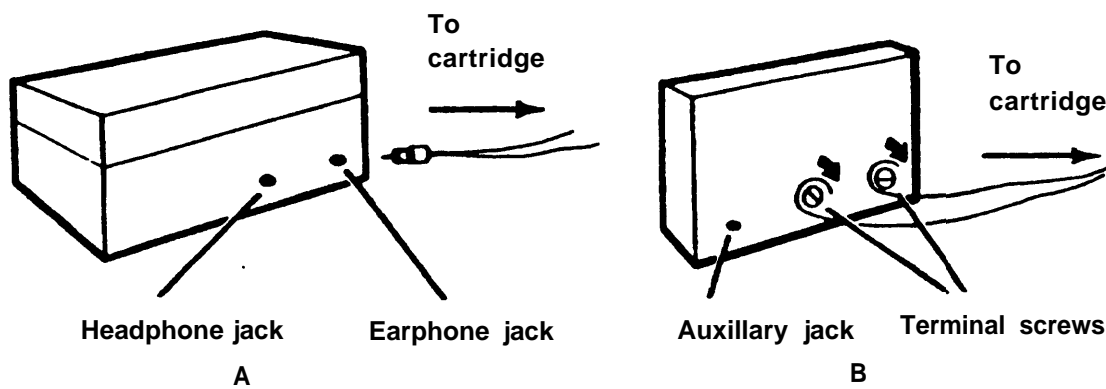   b. If your music source has two terminal screws, connect the ends of the two wires to the screws (Figure 2B).

Figure 2
Connecting the Wires to Your Music Source

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2. Loosen the two terminal screws marked M1 and M2 on your cartridge.

3. Wrap the loose end of either one of the wires from the music source clockwise around the M1 terminal.

4. Wrap the loose end of the second wire from the music source clockwise around the M2 terminal.

5. Tighten the terminal screws.

6. If you have a Model 206 or 410 control unit, plug the control unit power cord back into the ac outlet. If you have a Model 820 control unit, turn the On/Off switch to *On.*

7. Plug the power cord from the music source back into the ac outlet.

8. Turn on your music source.

CONNECTING YOUR PAGING SYSTEM TO THE CARTRIDGE

Connecting the Wires to Your Paging System

Consult the instructions for your particular paging system to determine how to connect it to the cartridge to best suit your needs. This brochure lists basic instructions for connecting three major types of paging systems: an amplifier system, systems that require a switched contact closure, and those that supply loop current. You may have to buy an adapter cord to connect your paging system to the cartridge, depending upon the kind of paging system you have. Connect the wires or modular plug to your paging system according to the instructions provided with your paging system.

Connecting the Wires to Your Cartridge

With an Amplifier Paging System

1. Loosen the two terminal screws labeled T and R on your cartridge.

2. Wrap the end of the wire connected to the paging system Tip clockwise around the T terminal (Figure 3).
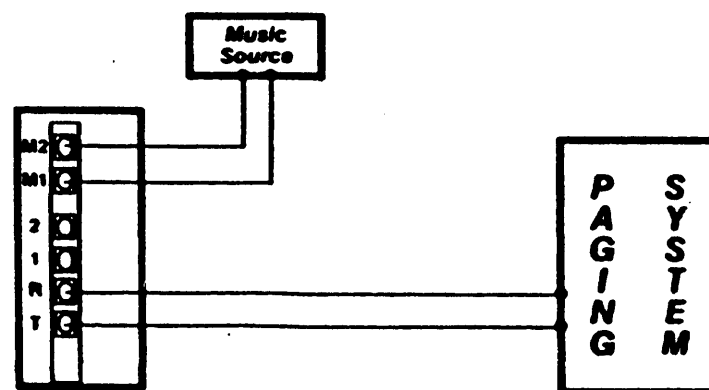

Figure 3
Connecting an Amplifier Paging System to the Cartridge

3. Wrap the end of the wire connected to the paging system Ring clockwise around the R terminal (Figure 3).

4. Tighten the screws.

With a Paging System That Supplies Loop Current

To provide Paging With a paging system that supplies loop current, you need to buy a 2000-ohm 2-watt resistor at an audio supply store. Connect your paging system to the cartridge as follows:

1. Loosen the four terminal screws labeled T, R, 1, and 2 on your cartridge.

2. Wrap the loose end of the wire connected to Tip on the paging system around the T terminal.

3. Wrap the loose end of the wire connected to Ring on the paging system around the 2 terminal.

4. Connect the resistor to the cartridge by wrapping one wire from the resistor clockwise around the R terminal and the second wire clockwise around the 1 terminal (Figure 4).
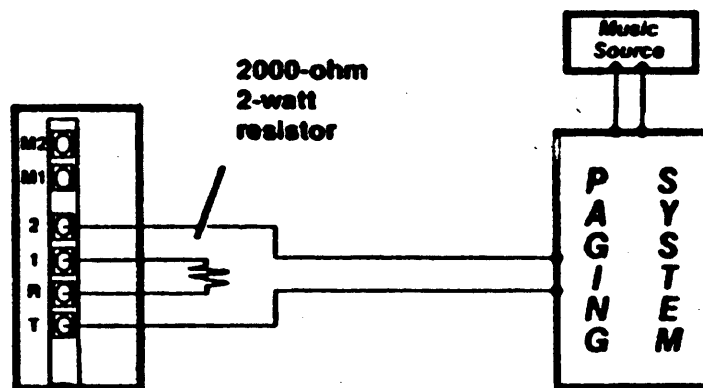

Figure 4
Connecting the Wires for Paging Only

5. Tighten the screws.

To provide Music-on-Hold and Background Music with a paging system that supplies loop current. You must bridge your music source to the paging unit or vice versa. You can choose one of two ways to do this: either connect the M1 and M2 terminals on your cartridge to the paging unit music source (Figure 5), or add a second, separate music source, and connect it directly to the cartridge so that you have two separate systems (Figure 6).
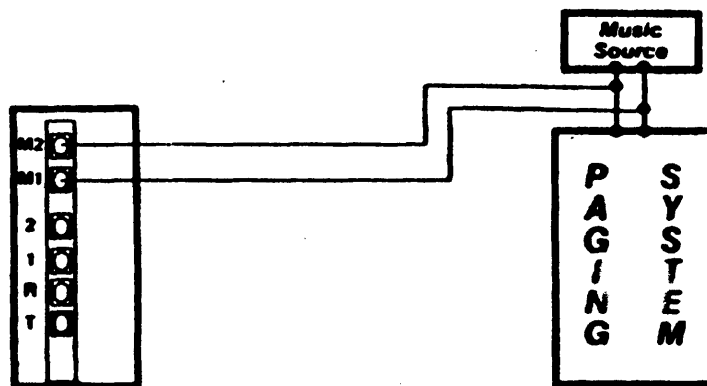
Figure 5
Connecting the Wires for Music-on-Hold
and Background Music
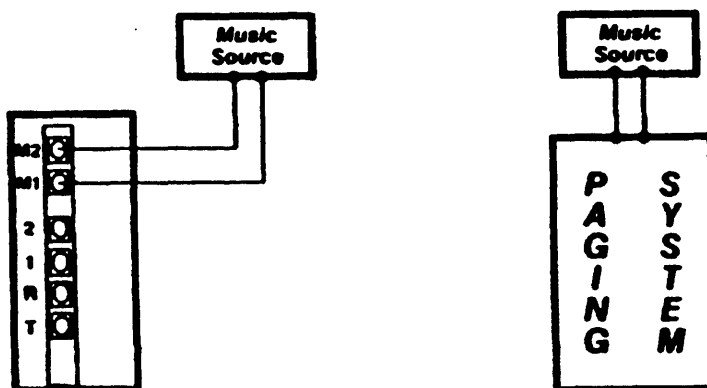with a Paging System Music Source

Figure 6
Connecting the Wires for Music-on-Hold and Background Music
with a Separate Music Source

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With a Paging System That Requires a Switched Contact Closure

To provide Paging and Background Music with a paging system that has no music source, connect the wires to the cartridge as follows:

1. Loosen the three terminal screws labeled T, R, and 1 on your cartridge.
2. Wrap the loose end of wire connected to Tip on your paging system clockwise around the T terminal (Figure 7).
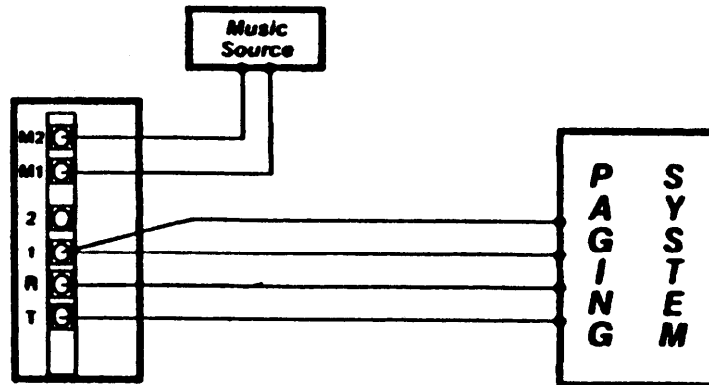

Figure 7
Connecting the Wires for Paging and Background Music
to a Paging System without a Music Source

3. Wrap the loose end of the wire connected to Ring on the paging system clockwise around the R terminal (Figure 7).
4. Wrap the loose ends of both wires connected to the switched contact closure connections on the paging system clockwise around the 1 terminal (Figure 7).

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To provide Paging only, connect your wires to the cartridge as follows:

1. Instead of wrapping both wires from the switched contact closure connections on the paging system, wrap the loose end of one of these wires to terminal 2 on the cartridge (Figure 8).
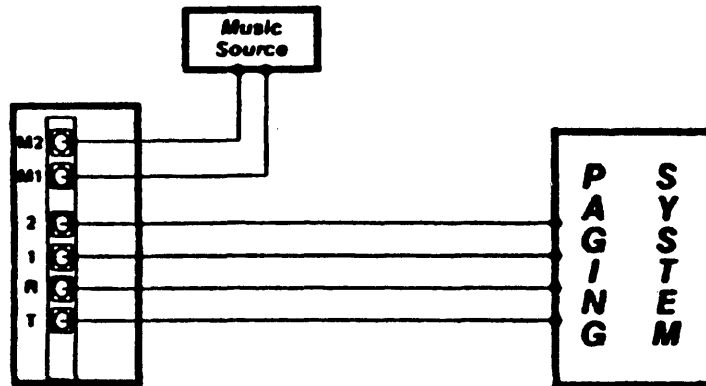
2. Tighten the screws.

Figure 8
Connecting Your Cartridge for Paging Only
to a Paging System Without a Music Source

To provide Paging and Background Music with a paging system music source, connect your wires to the cartridge as shown in Figure 9.
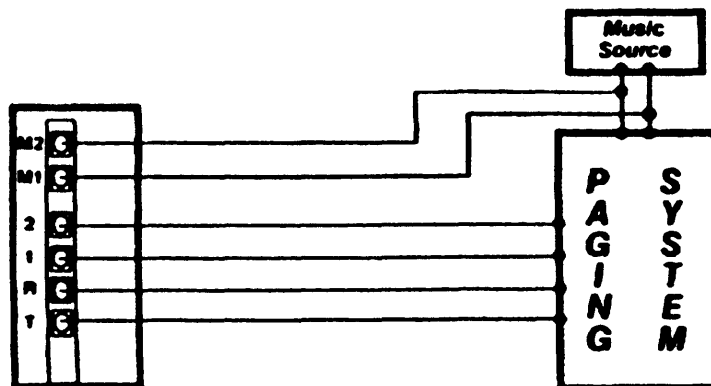

Figure 9
Connecting the Cartridge for Background Music and Music-on-Hold
to a Paging System Music Source

Testing

MUSIC-ON-HOLD

Test Music-on-Hold by calling one of your other lines and having someone place you on hold.

PAGING

Test Paging by calling the paging system from any voice terminal, as follows:

1. Plug the paging system power cord into the ac outlet.
2. Turn on the paging system.
3. Slide the Paging Signal switch to the *On* or *Off* position, depending upon whether you want the Paging Signal tone to sound before every paging announcement.
4. Lift the handset.
5. Touch the Intercom button.
6. Dial 6.
7. Speak into the handset.

Adjusting the Volume

FOR MUSIC-ON-HOLD

NOTE: The cartridge circuits may distort an amplified signal intended for use with a speaker. If you only have a speaker connection available and the Music-on-Hold sounds distorted, lower the volume at your *music source.* If it still sounds distorted, call your equipment supplier.

When you hear the music adjust the volume to the level you want by using a screwdriver to turn the recessed screw labeled Music-on-Hold on the cartridge (Figure 10) as follows:

- To increase the volume, slowly turn the volume control screw clockwise.

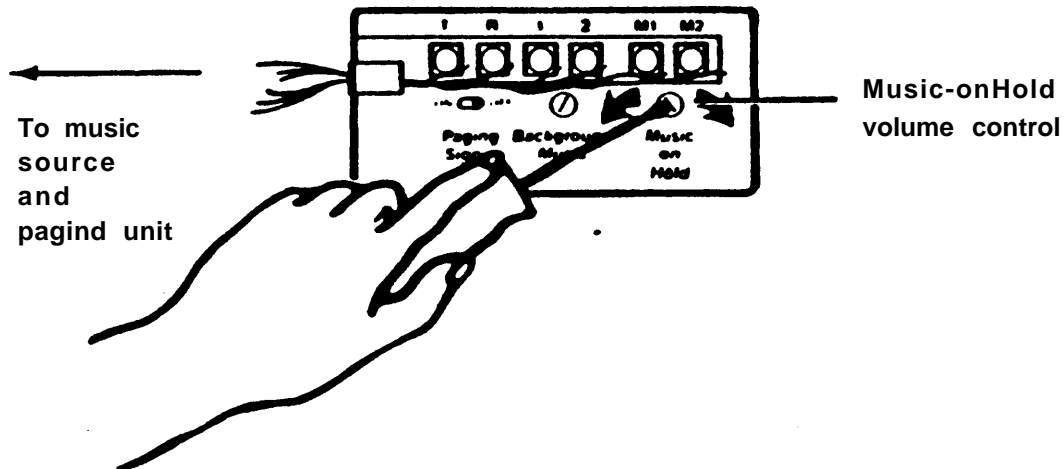- To decrease the volume, turn the volume control screw counterclockwise.

Figure 10
Adjusting the Volume for Music-on-Hold

FOR BACKGROUND MUSIC

Adjust the volume to the level you want by using a screwdriver to turn the recessed screw labeled Background Music on the cartridge (Figure 11) as follows:

- To increase the volume, slowly turn the volume control screw clockwise.
- To decrease the volume, turn the volume control screw counterclockwise.
- If you want no background music over the paging speakers, turn the volume control screw counterclockwise as far as it goes.
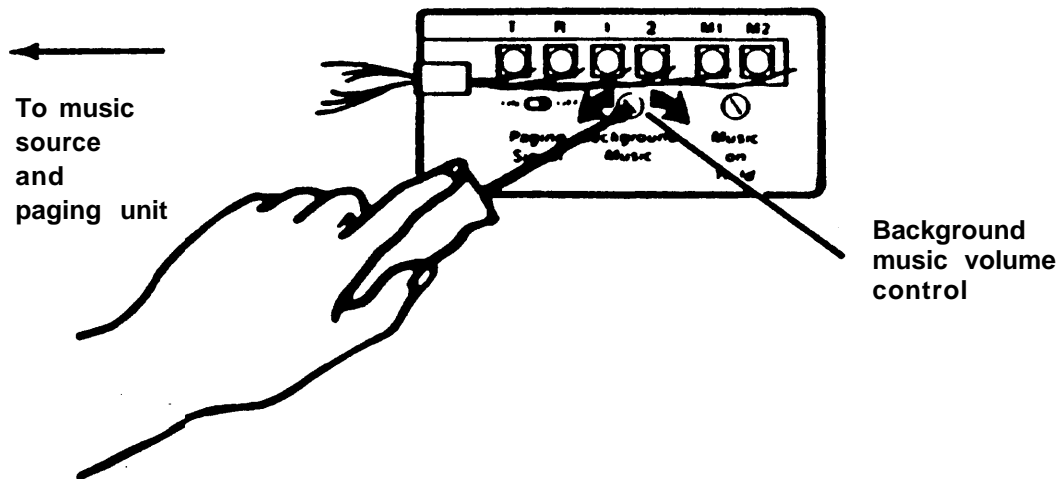

Figure 11
Adjusting the Volume for Background Music

When the volume level sounds right, arrange the wires from the cartridge neatly and close the control unit door.

NOTE: You may also have volume controls on your speakers and paging unit. If your paging unit controls the volume of your music source, you may have to adjust the volume on the paging unit.

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