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**Connecting Speakers,
Telephone Adaptor Kit,
I.R. Remote Detector, and
Paging Microphone**

- Speaker Connections
- Installation of the Telephone Adaptor
Kit for Removable Volume Control
- Installation of the I.R. Remote Detector
and Harness Assembly
- Connecting a Paging Microphone

The Dual Digital Amplifier has such high level of versatility that almost any installation is easily accomplished. There are two 450 watt peak music power stereo amplifiers built into the same housing.

As shipped from the factory, the jukebox speakers are connected to the main or Internal amplifier such that they receive 100% of the power from one of the amplifiers. The second or External amplifier is available for connecting external speakers.

External Speaker Connections

Installation examples are divided into 3 types:

Example 1 – Jukebox plus 1 or 2 pairs of speakers in the same room with 1 volume control.

Example 2 – Jukebox in one room without speakers and 1 or more pairs of speakers in another room with separate volume controls.

Example 3 – Jukebox plus 1 or 2 pairs of speakers in 1 room and 1 or more pairs of speakers in another room with 2 separate volume controls.

Connections to the speakers should be made with a #14 gauge minimum speaker wire with runs of less than 50 feet.

Note: Observe the correct positive (+) and negative (-) polarity when making your speaker connections. Reversed polarity on any speaker will reduce fidelity. "Cross-channel" connections are not possible as neither channel has an inverted output.

All the connections to the amplifier cannot exceed the amplifiers rated total of 450 watts peak music power. (225 watts per channel.)

After all of the speakers are connected, play a selection and adjust the graphic equalizers as desired. Then run the system at the highest volume setting that the location will use. If the system plays without any distortion and does not "cut-out", then the speaker load is appropriate

for the maximum volume, and the installation is complete.

If the audio is distorted or "cuts out", at a high volume setting, there are three options. Reduce the bass, reduce the maximum volume setting, or move one or more speaker lines to a lower impedance terminal. See the programming section on "Volume Limits" (Quick Find 78 in Section E of this manual.) to set the maximum volume if necessary. Retest the system after making the changes.

Note: The Digital SyberSonic Amplifier will automatically reduce the volume in order to continue to operate even if the speaker load is incorrect however, there will be several seconds of silence when the overload condition occurs. This protection resets at power up.

If greater flexibility in speaker loads is needed or 70-Volt CV speakers are to be used, an optional audio distribution assembly (P/N 70046-1A) may be installed.

Speaker Loading

To achieve maximum volume and prevent amplifier overloading, calculate total impedance of speakers and hook-up to corresponding tap on Audio Output Panel. Typical configurations are shown in the table below. Additionally, several common installation scenarios are shown on the following pages.

Speaker Loading Chart

Number of Pairs 8-Ohm Speakers	Ext Speakers Connected to Terminal No.
None	NA
1 Pair	4
2 Pairs	4
3 Pairs	2
4 Pairs	2
5 Pairs	1
6 Pairs	1
7 Pairs	1
8 Pairs	1

Example No. 1 - Jukebox plus 1 or 2 pairs of speakers in the same room with 1 volume control.

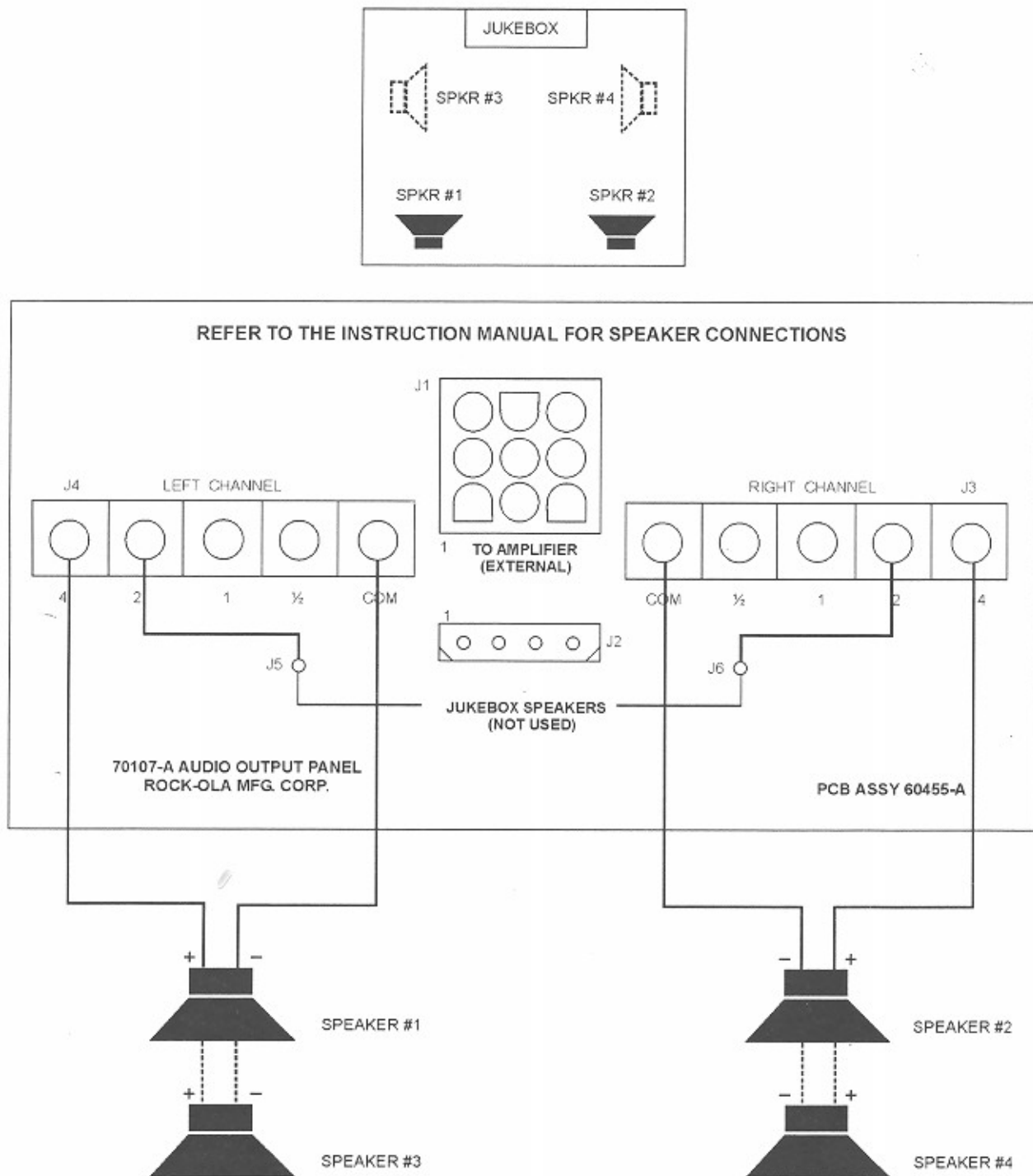


Figure 1C

If all of the speakers are located in the same room and a single volume control is to be used, connect them to the audio output panel as shown. The internal volume buttons will control the jukebox speakers and the External volume buttons will control the external speakers. Once the sound is "balanced" between the external speakers and the jukebox speakers, the volumes may be "bridged" (QF 79) so as to preserve the balance and allow either the Internal or External volume buttons to be used.

Example No. 2 - Jukebox in 1 room without speakers and 1 or more pairs of speakers in another room with separate volume controls.

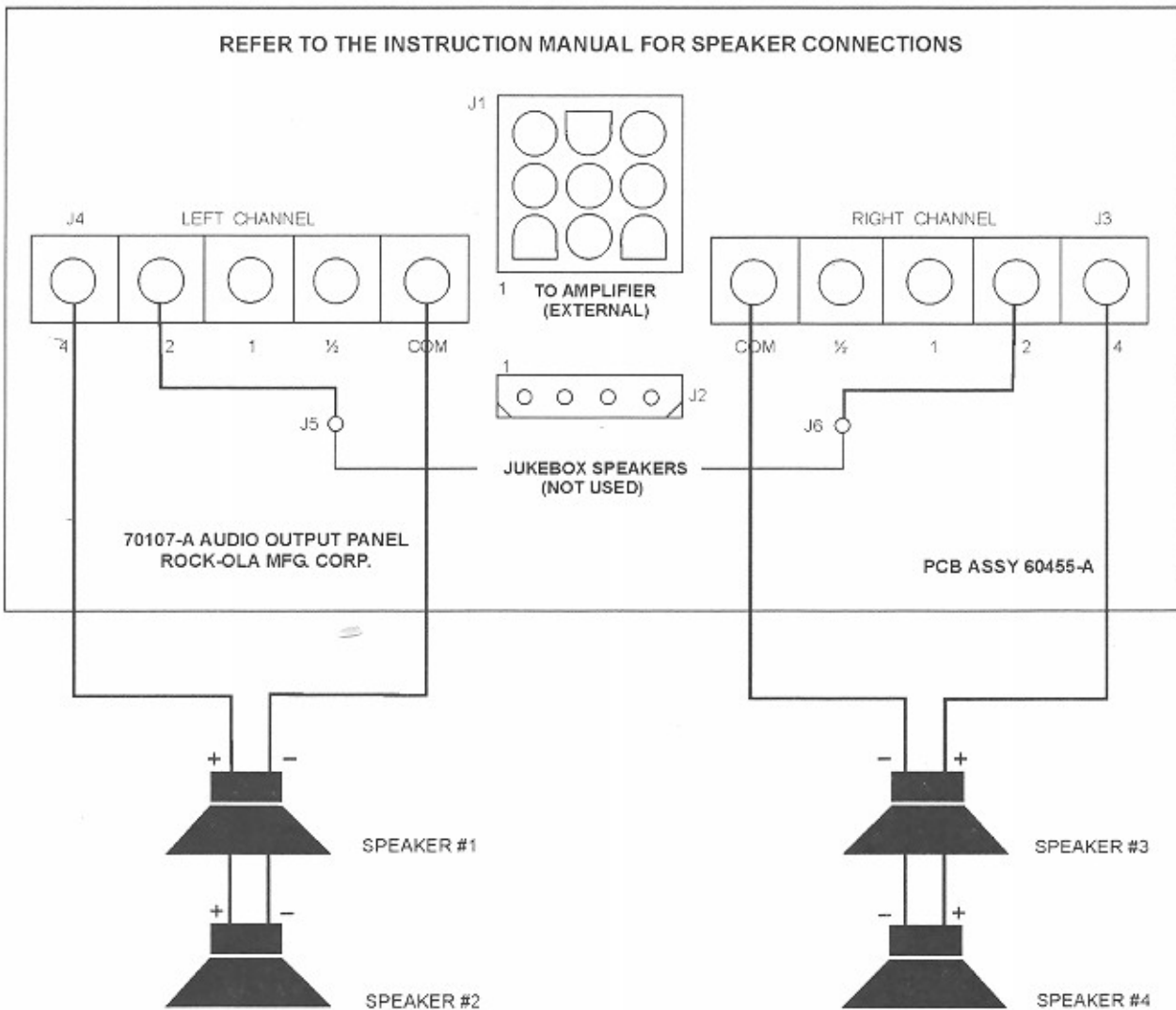
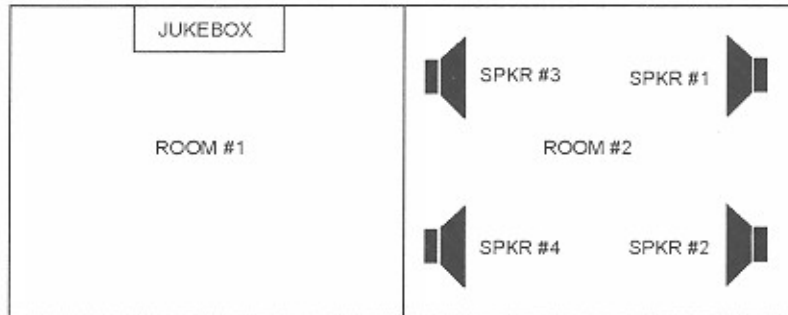


Figure 2C

If there are no external speakers in the room with the jukebox, connect the external speakers to the output panel. Use the Internal volume buttons to operate the jukebox volume and the External volume buttons to operate the external speakers.

Example No. 3 - In this example, the audio output panel is plugged into the main amplifier and the jukebox speakers are plugged into the output panel using the 60685-A adaptor harness package provided in the service envelope. The speakers that are in the same room as the jukebox are connected to the output panel taking care to use the proper taps. If 2 pairs of 8 ohm speakers are connected to the 4 ohm tap, then the jukebox must be connected to the 1 ohm tap. If the jukebox speakers are too loud compared to the external speakers, they may be moved to the 1/2 ohm tap. The speakers in the second room are then connected to the output terminal block. The internal volume buttons will control the speakers in the second room. The External volume buttons will control the speakers in the first room.

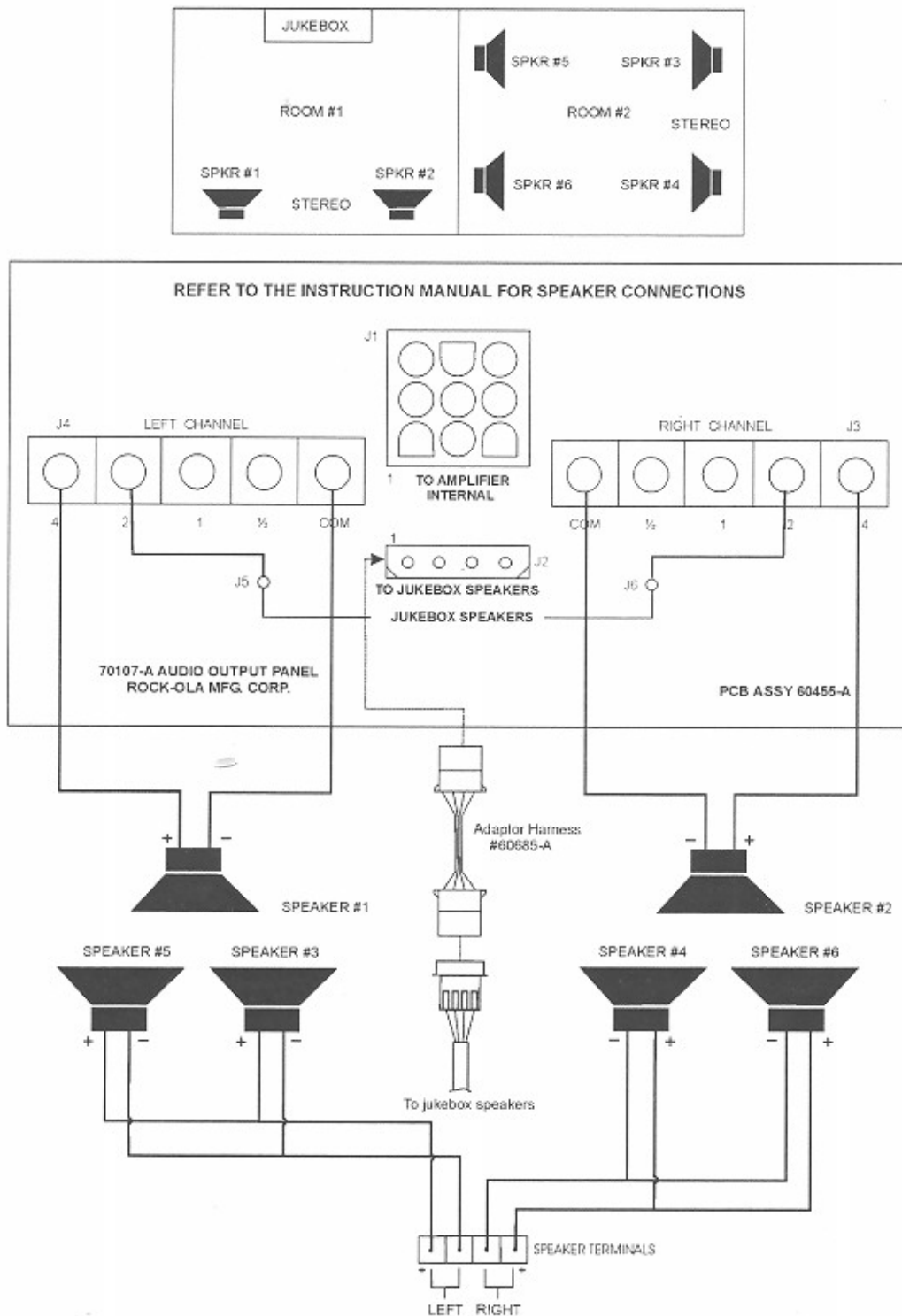


Figure 3C

Installation of the Telephone Adapter Kit (P/N 02413-01) for Removable Volume Control

1. Unplug and remove volume control from back of phonograph.
2. Install cover plate over volume control hole.
3. Install a 6-pin phone jack not more than 1" above the cover plate. (Installing the phone jack too high can cause interference with the title display assembly).
4. Route a 5-wire cable through wire hole in the back of cabinet and connect to the phone jack noting wire colors.
5. Re-install the phone jack cover and plug the red phone wire into the newly installed phone jack.
6. Mount the volume control assembly in a suitable location.
7. Mount the other phone jack to the right of and not more than 12 inches from the volume control module.
8. Connect the 5-wire cable to this phone jack using the same wiring scheme as step 4.
9. Install cover on phone jack and connect the 12" jumper to phone jack and volume control module.
10. Test for proper operation.

Color	Pin #	Description
BLU	Pin 1	Internal Common
YEL	Pin 2	External Common
GRN	Pin 3	Cancel & Mute Common
RED	Pin 4	Mute, Int Down, Ext Down
BLK	Pin 5	Cancel, Int Up, Ext Up
WHT	Pin 6	Not used

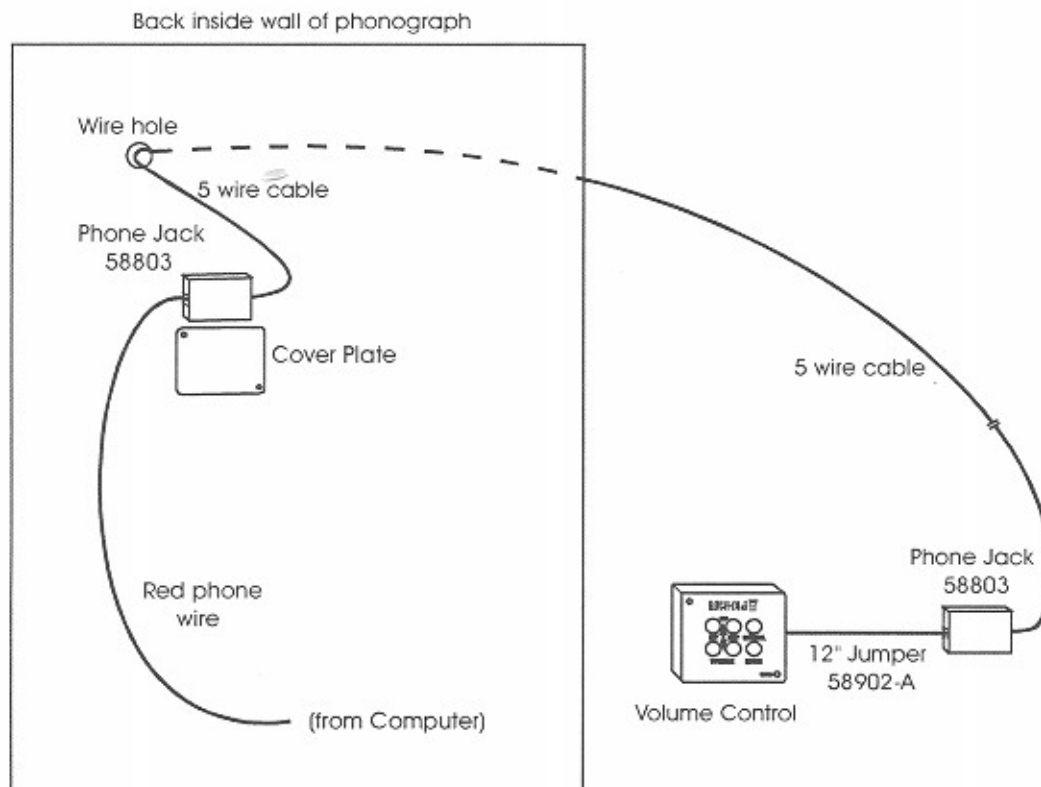
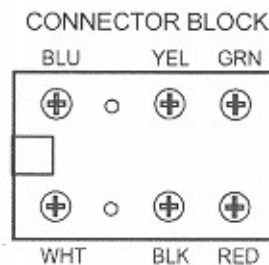


Figure 4C

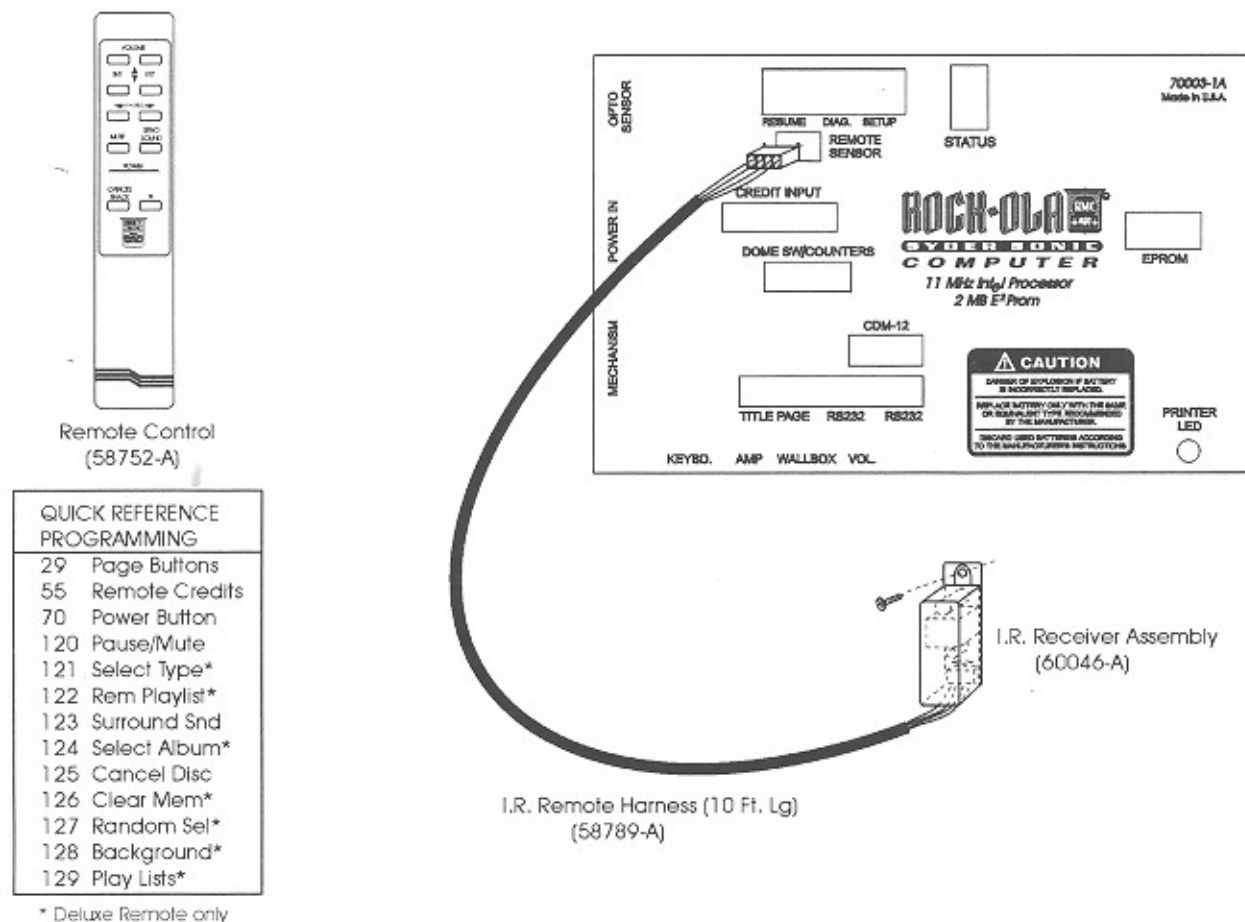
Installation of the I.R. Remote Detector and Harness Assembly

1. Plug I.R. remote harness into the Syber-Sonic Computer assembly at the "Remote Sensor" location. (See diagram).
2. Route harness and I.R. detector assembly through the cable cover hole on the back of the jukebox. Make sure not to route cable near any moving components.
3. For best results: Locate the detector eye on the wall behind the jukebox. Depending on the location of the jukebox, it may be necessary to try different heights on the wall to obtain the best result.

For locations that you are unable to mount the detector eye on the wall behind the jukebox, you may try mounting the eye on the back wall of the jukebox. The I.R. signal will bounce off walls and ceilings.

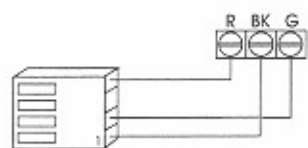
Note: Infrared (I.R.) light transmitted from the hand held remote control can not be seen by the naked eye. The LED on the I.R. detector eye will flash when a button has been pressed to show that the I.R. detector eye is receiving a signal from the remote control.

The remote does not work when the dome switch is in the service position.

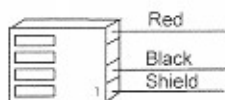


Connecting A Paging Microphone

Rock-Ola's Advanced SyberSonic Amplifier can accept virtually any paging microphone. Pictured below are wiring diagrams for the most common paging kits. Installation Instructions for Yoga Paging Kit #02379-02 are in Section J of this manual. The necessary connector is included with Rock-Ola paging kit. To use other paging kits you will need to acquire one (1) Amp part number 640250-4 housing (RMC P/N ST-11244) and four (4) Amp part number 640252-1 contacts (RMC P/N ST-11245) or equivalent.



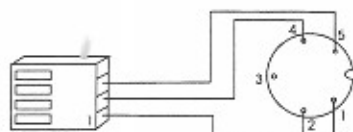
Rock-Ola® 02379-01



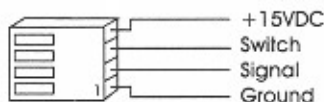
Yoga Microphone Kit 02379-02



Rowe®



NSM®



Generic

Figure 6C - Connecting a Paging Microphone

The paging system works by sensing audio on the signal line. Whatever microphone is used, it must have some kind of switch to mute the audio when not in use.

Set the Microphone gain switch to "LOW" and the gain control at midpoint. Press the talk button on the microphone and speak into it. The "Status" LED on the amplifier should blink and the microphone signal should be heard in the speakers. Adjust the microphone gain control to the loudest level you want the location to be able to have. If more gain is necessary, turn the microphone gain switch to "HIGH".



CAUTION

Be sure the gain control is turned down to avoid speaker damage from acoustical feedback.

PRECAUCIÓN

Asegúrese de que el control de ganancia esté en un ajuste bajo para evitar causar daños al altavoz debido a la retroacción acústica.

MISE EN GARDE

Assurez-vous de baisser la commande du gain afin d'éviter les dommages causés aux haut-parleurs par la rétroaction acoustique.

Refer to the amplifier settings in section D for adjusting which channels to hear paging, the music level while paging, and length of time before the music comes back up.

Note: If the jukebox is idle with auxiliary background music inputs off, there will be a short delay of approximately 2 seconds for the amplifiers to "wake up" when a paging signal is detected.