

External Speaker/Ringer Amplifier (BESCB1A)

The BESCB1A is a multi-functional, external, amplifier. It can be used to power a paging speaker, an amplified talk back speaker, or Loud Ringer for a telephone.

Strata CIX systems provide three options utilizing an BESCB1A:

- Telephone External Ringer
- Amplified Page Speaker
- Amplified Page Speaker with Talkback

System hardware requirements vary depending on the BESCB1A option selected. See the following installation procedures for the hardware requirements for each option.



Figure 1 BESCB1A Front Cover

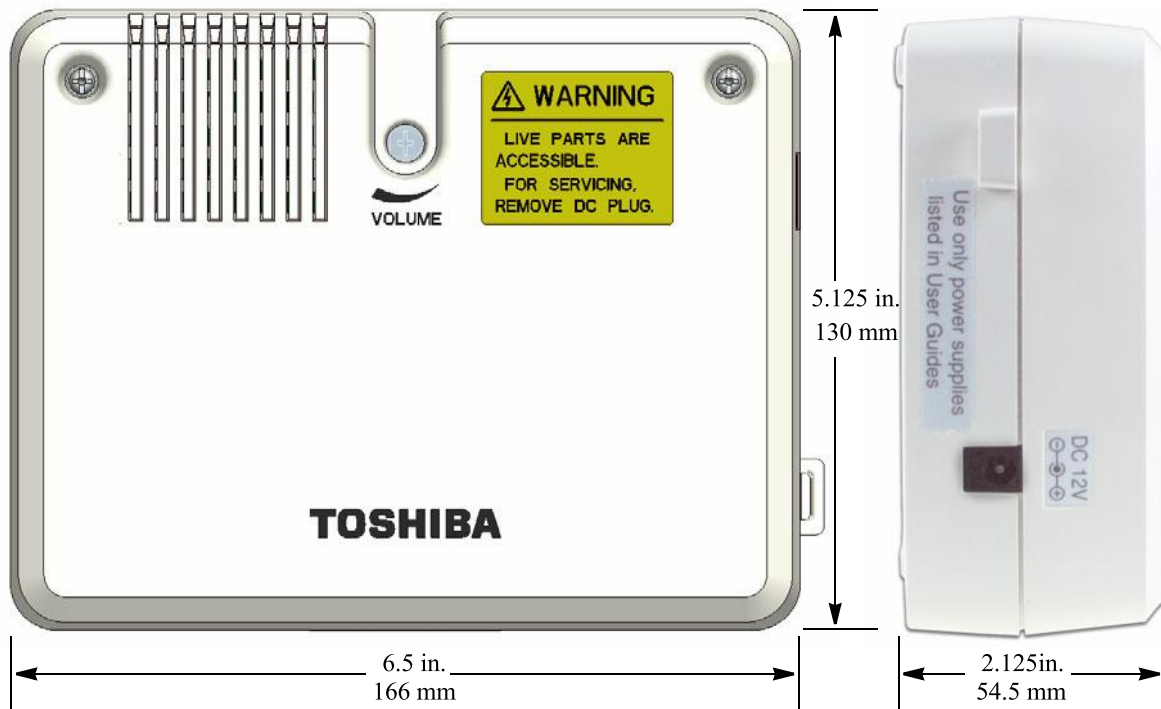


Figure 2 BESCB1A External Amplifier

Telephone External Ringer

The loud ringing bell option enables the voice first or ringing signal tone to be amplified without the use of other manufacturers' equipment. The voice first and signal tone can be amplified on all electronic and digital telephones equipped with BHEU card, HESC-65A cable and BESCB1A. (See Chapter 7 – Station Apparatus of the CIX Installation and Maintenance Manual.)

The BESCB1A automatically turns off once the ringing call or voice first has been manually answered from the electronic or digital telephone. This turn-off feature prevents audio feedback problems.

External Speaker Specifications

The Output from BESCB1A is wired to a customer supplied External Speaker. The Speaker should be capable of handling three watts (or more). The output can be connected to a high or low impedance speaker. The speaker impedance and power available at the output are listed below. Connect only one speaker the BESCB1A.

1. For High impedance External Speaker - 2k ohm ~ 10k ohm (3.3k ohm recommended.)
 - 1 Watt (3.3k ohm External Speaker)
 - 1.6 Watt (2k ohm External Speaker)
 - 0.3 Watt (10k ohm External Speaker)

2. For Low impedance External Speaker 8 ohm ~ 16 ohm (8 ohm recommended.)
 - 1 Watt (in 8 ohm External Speaker)
 - 0.5 Watt (in 16 ohm External Speaker)

Wall Mount and Wiring the BESCB1A

WARNING! Ensure the DC plug is not plugged into the BESCB1A.

1. Ensure that the DC cable is not connected, then remove two screws from the cover, and take off the cover.
2. Secure the base with two wood screws (included) to wall.
3. Connect the wiring the cables to the BESCB1A terminals.
4. Route the wires through the cabinet slot at the bottom. Secure the wires to the BESCB1A base with the provided cable tie.
5. Connect the DC Adapter cable. Do not plug the Adaptor into the AC power connector until the BESCB1A cover has been replaced.
6. Attach the DC cable to the tab on the BESCB1A with one of the cable ties.
7. Attach the cover, and secure the cover with two screws.
8. To adjust the sound level use a screwdriver to rotate the Volume control.

WARNING! Ensure that the high impedance wiring and contacts at the speaker terminals are protected from user contact.

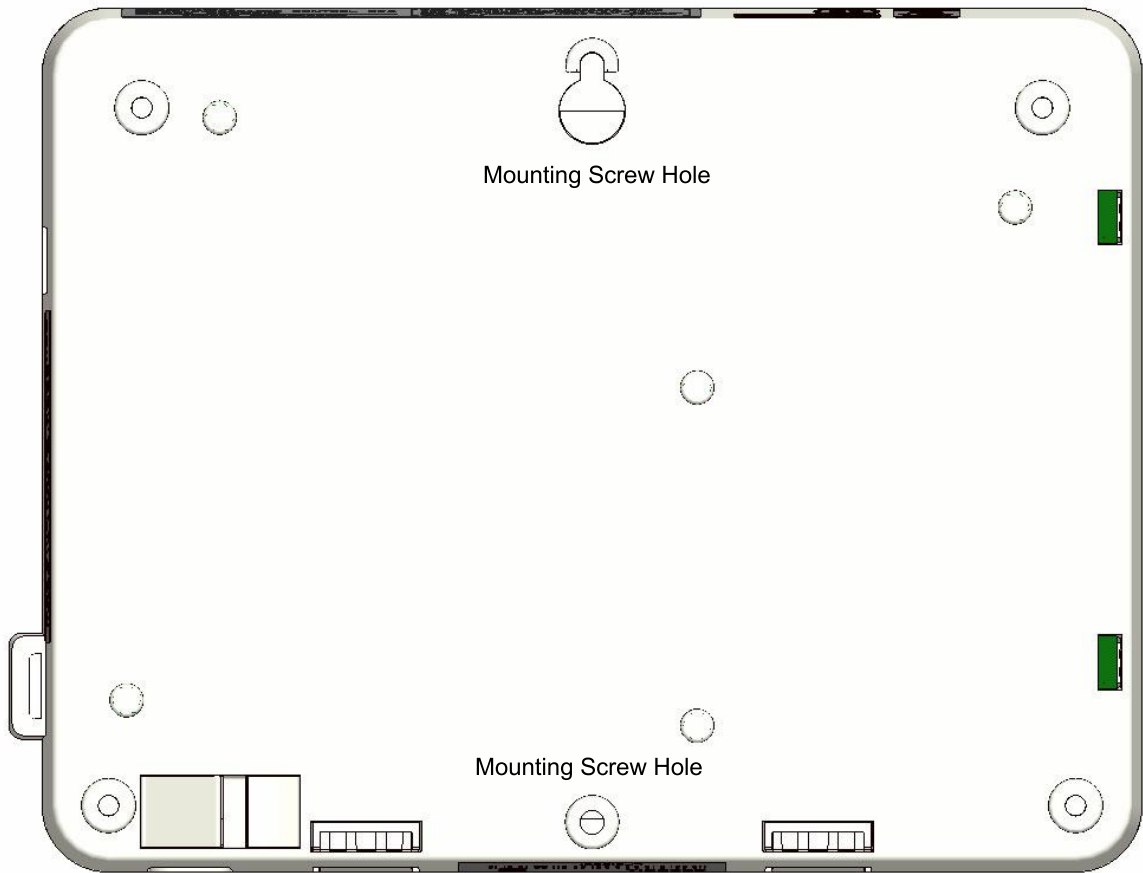


Figure 3 **BESCB1A Rear View**

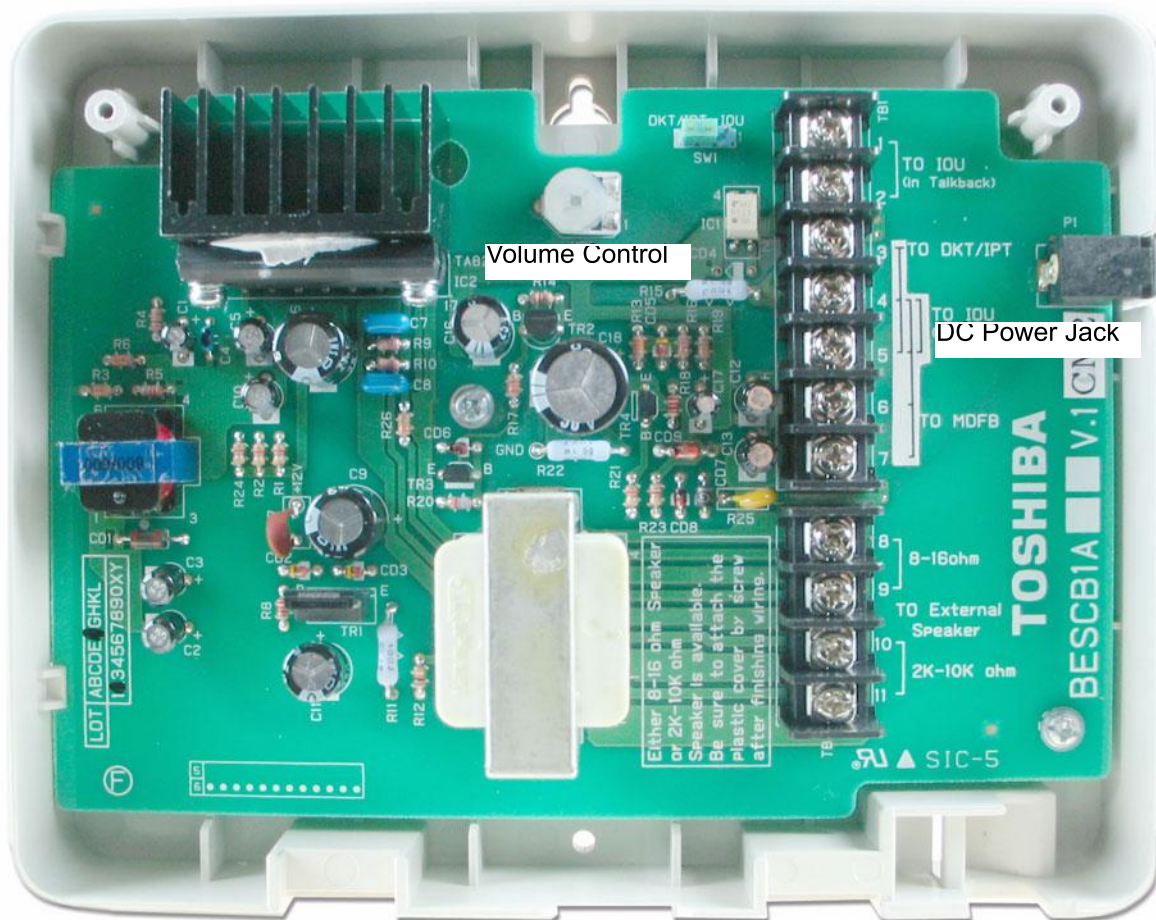


Figure 4 BESCB1A Circuit Board

Telephone (BHEU) to External Speaker (BESCB1A) Cable Connection

Refer to the CIX Installation and Maintenance Manual Chapter 16 for instructions about the HESC-65A (Cable for DKT/IPT connection). This cable is used to connect the telephone to the BESCB1A as a Telephone External Ringer. The cable is an option, it is not included in BESCB1A.

Step 1: Set UP the Telephone for External Ringer

DKT3000 Telephone Instructions

- For a DKT3000 Telephone with BHEU and BESCB, terminal setup is not required. There is no BESCB Loud Bell enable / disable function.
- For a DKT3000 Telephone with HHEU and BESCB, the following steps are required to setup BESCB.
 - Press 369+Hold (simultaneously).
 - Press # FB08 (FB08 = Feature Button 08, not dial pad 8)

3. Press Msg (Msg LED turns On) to turn On the BESCB connection
....or press Msg again (Msg LED turns Off) to turn Off the BESCB connection.
 4. Press Hold.
- Refer to Chapter 15 of the Installation and Maintenance Manual for instructions on the HESC-65A Cable. The HESCB is used only for DKT connections.

Digital Telephone Instructions

- Refer to Chapter 15 of the Installation and Maintenance Manual for instructions on the HHEU jumpers and cutting the EXSP on 2000-series digital telephones.

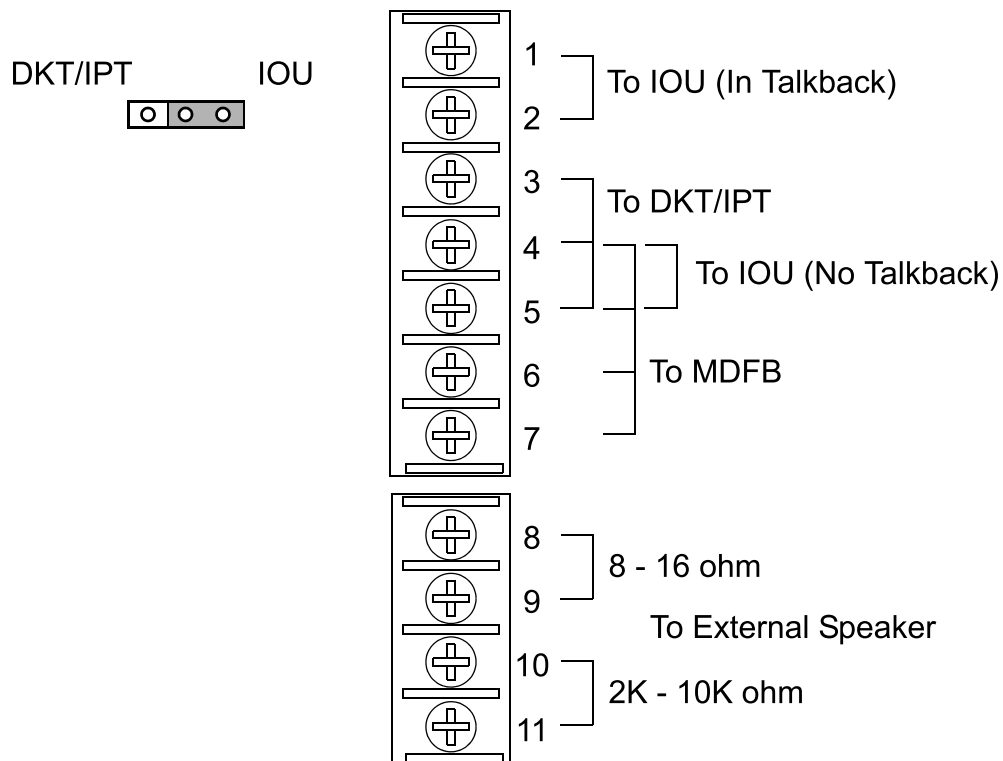


Figure 5 BESCB1A Circuit Card Terminals

Amplified Page Speaker

Use the BESCB1A as the amplifier for Paging without talkback capability.

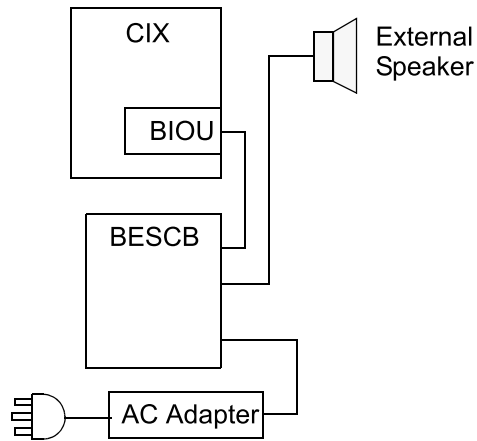


Figure 6 Amplified Paging Speaker

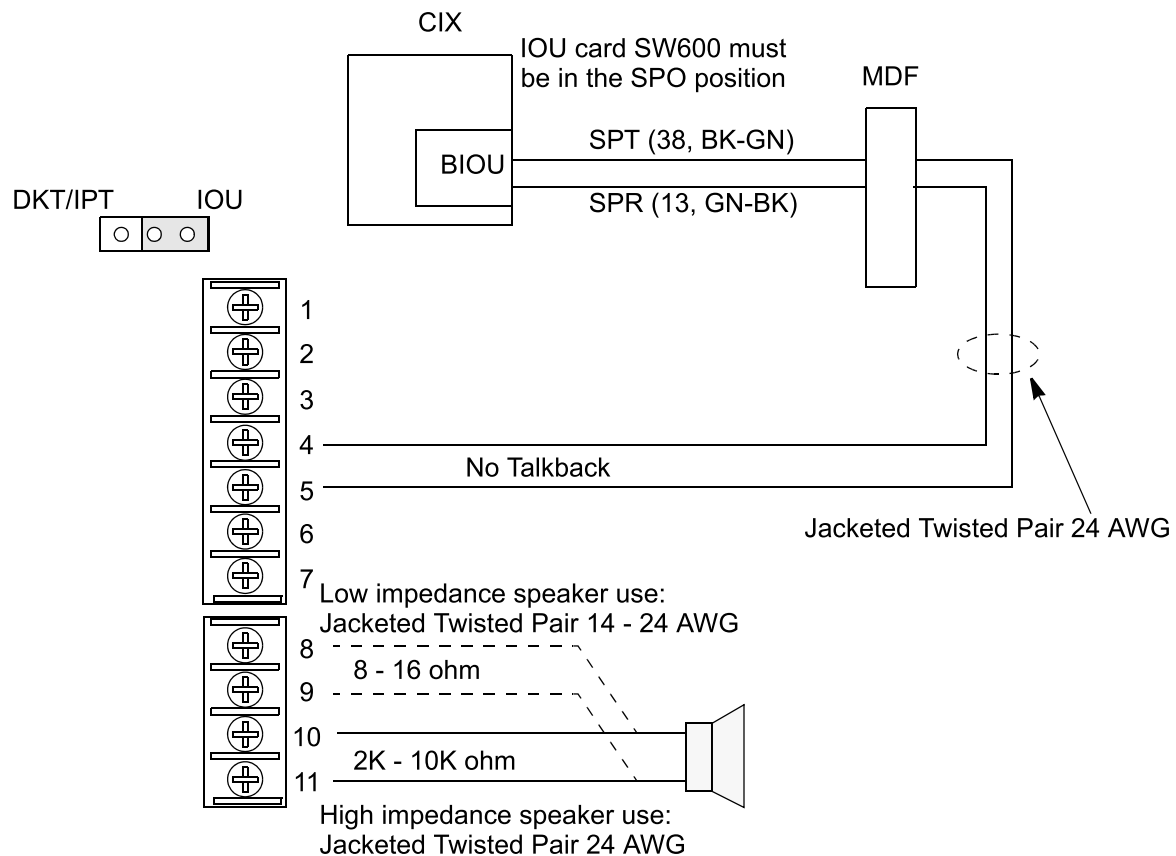


Figure 7 Amplified Paging Speaker (Without Talkback) Wiring Diagram

Talkback Paging with Doorphone Unit Microphone

Talkback Amplified Page Speaker - Door phone unit (MDFB) serving as the talkback microphone.

This is useful in areas that do not require a telephone. The MDFB serves only as a microphone, the push-button is inoperative.

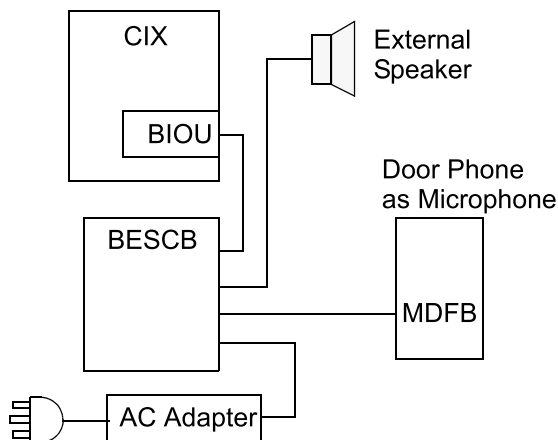
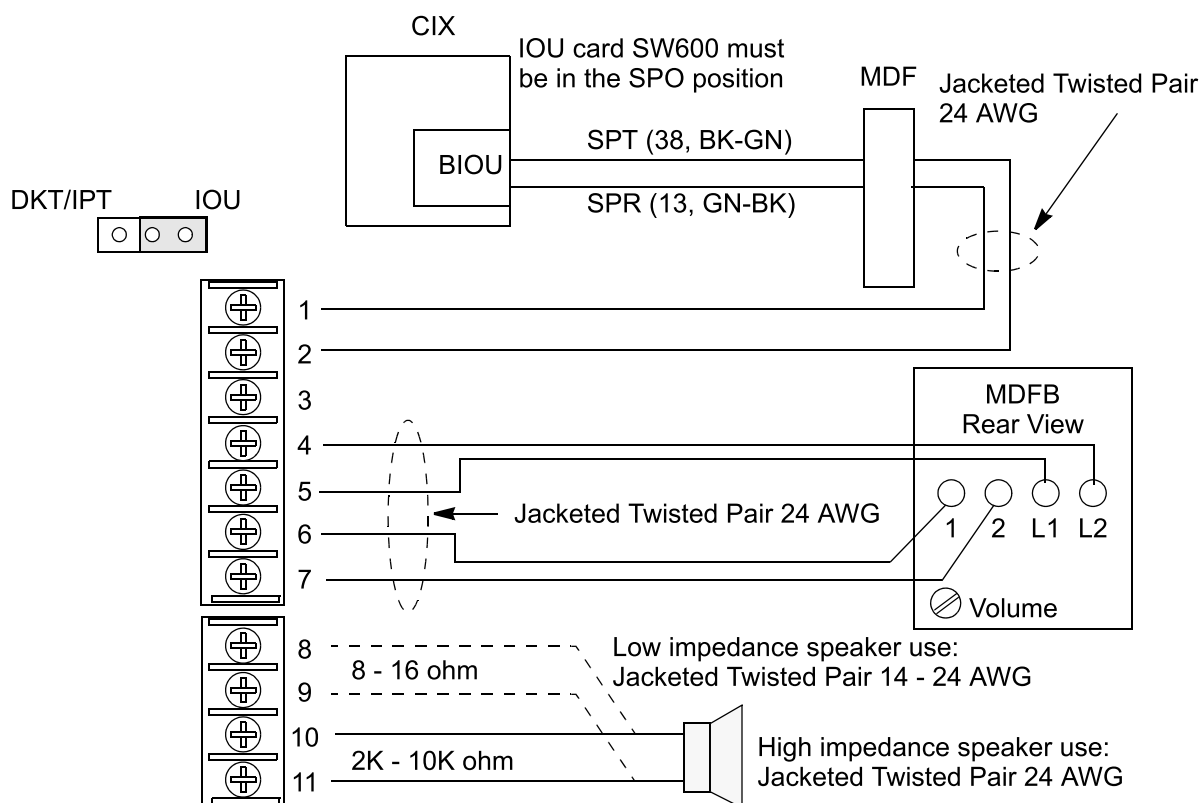


Figure 8 Amplified Talkback Paging Speaker with Door Phone as Talkback Microphone

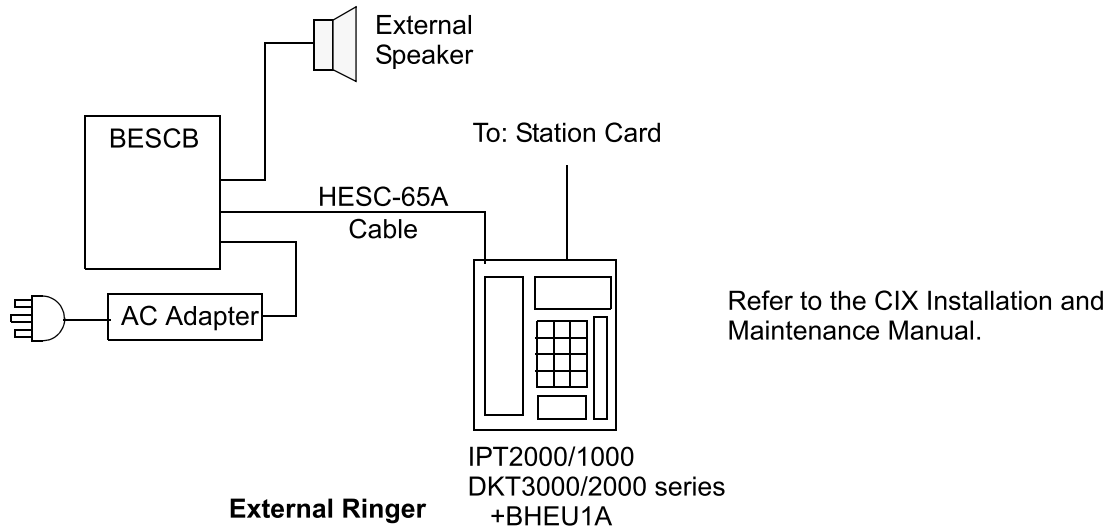


Set the MDBF volume control to the minimum level. Place a call a station to the BESCB1A. Adjust the MDBF volume as needed. If the MDBF volume is set too high the sound will be distorted.

Figure 9 Amplified Talkback Paging Using Door Phone Unit as Microphone Wiring Diagram

External Telephone Ringer

Using the BESCB1A as the interface and amplifier for a loud ringer external speaker. This option functions as an external loud ringer for an IPT or DKT telephone set.



Install BHEU, HHEU Circuit (V.3 or .4) or HHEU2 card into the base of a DKT per installation instructions.

For HHEU (V.3 or .4) DO NOT cut OCA Strap or R607.

Figure 10 Telephone External Ringer

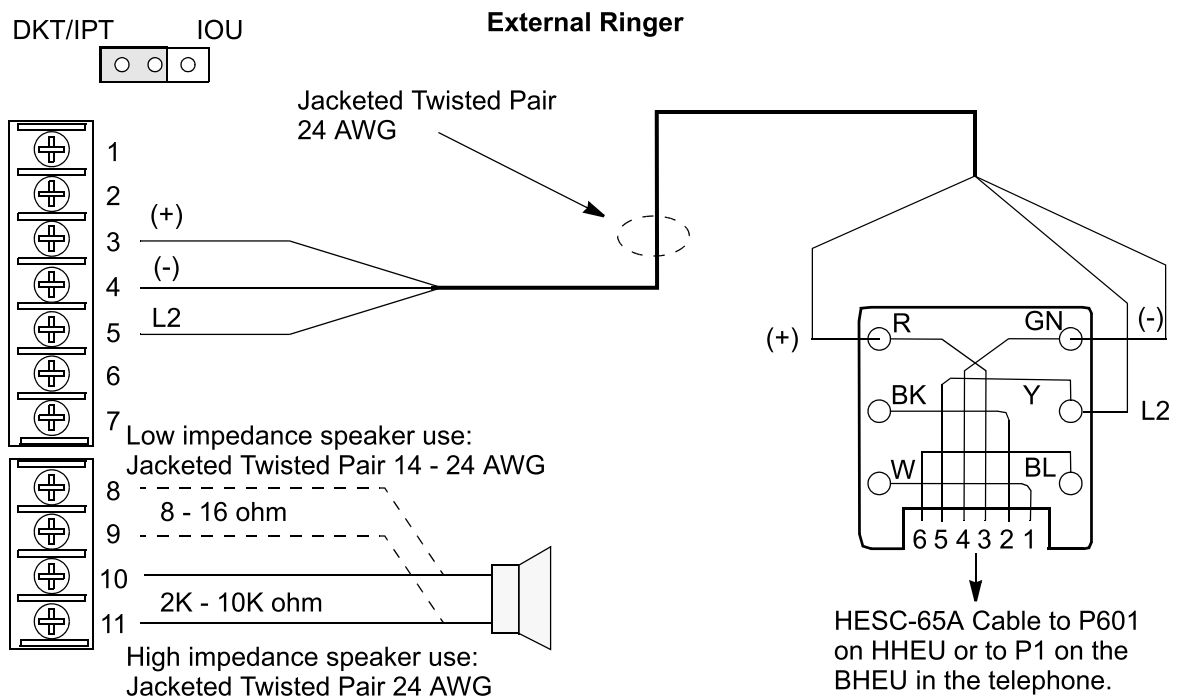


Figure 11 External Ringer Wiring Diagram