# Using a Speaker and 25V Line-Matching Transformer as an IC-100 Sub-Station

## Summary

You can build a limited function IC-100 sub-station using simple, readily available components.
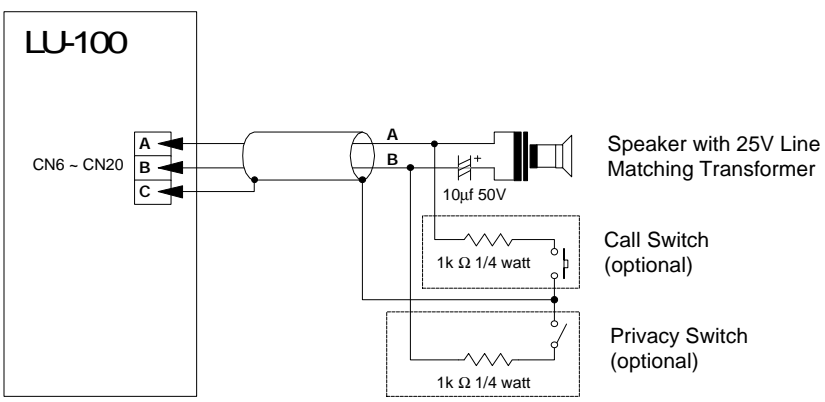
## Details

TOA designed its IC-100 sub-station ports for connecting speakers equipped with 25V line matching transformers. DC signaling between those ports and TOA sub-station hardware provides additional functions.

The sub-station shown below supports half-duplex conversations and the reception of pages, time signals and audio program (BGM). Optional switches add call-in and privacy functions.

For call or privacy LED indication, or for initiating a call while receiving a page, install an RS-100 Switch Panel or an RS-102 Call Module. For private, duplex conversations, install an RS-110 Handset Sub-station with either an RS-100 or an RS-102.

## Diagram

# TOA Product Support

# Connecting an External Amplifier to an IC-100 Sub-station Port

## Summary

Connecting an external amplifier to an IC-100 sub-station port provides that amplifier with all of the audio distribution features of an IC-100 sub-station.

## Details

The circuit shown below uses capacitors for blocking the DC signaling voltages normally used by IC-100 sub-stations. Resistors drop the speaker signal to line level. TOA recommends transformer isolation whenever you interconnect systems. Consider using TOA's 900 series amplifiers with "B" series balanced input modules.

## Diagram