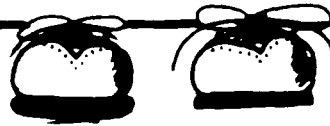




## TECHNICAL NEWS BULLETIN

SUBJECT: LEASED TELEPHONE LINE FOR DISTANCE PAGING



**APPLICATION:** The Raymer Model TLA-25 or TLA-70 may be used to match an amplifier output or speaker line to a 600 ohm line or leased phone line for the transmission of background music and/or paging to a remote location. An alternate application for the TLA-25 or TLA-70 is to match a speaker line to the auxillary input of a booster amplifier for the purpose of expanding an existing speaker system.

When the TLA unit is used to distribute background music or voice communication over a distance of several blocks or between floors of large buildings, the most practical approach is to lease an "unconditioned line" from the telephone company. There are certain restrictions which the telephone company imposes when permitting such a lease in order to prevent damage to their lines or crosstalk to adjacent lines. A TLA device must be used in this case to comply with the balance, voltage and power level limits. The output terminals of a power amplifier should never be directly connected to a phone line unless specifically identified for that purpose. In order to properly match the audio input of the amplifier at the receiving end of the line, a Raymer Model TM-2 Telephone Matching Adaptor should be used between the amplifier and the telephone line. A typical example is shown in figure 1. The Raymer Model ACR-1 Audio Controlled Relay may be

used in place of the Model TM-2 if control functions such as music mute are required when an audio signal is present on the line.

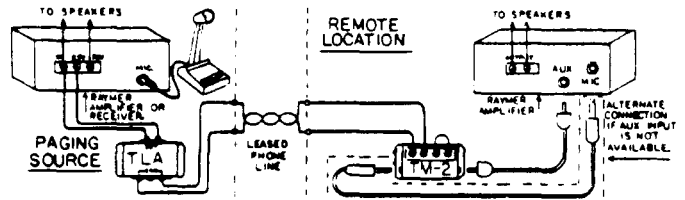


FIGURE 1: TYPICAL CONNECTION FOR PAGING OVER LEASED TELEPHONE LINES.

Since the 600 ohm output of a TLA unit is at line level, this output may be used as the source to the auxillary input of an amplifier. An RCA jack is provided on the output in addition to the screw terminals as a convenience in making such a connection. These features make it possible to extend an existing speaker line by the use of a booster amplifier, without the necessity of running additional wire back to the originating amplifier.

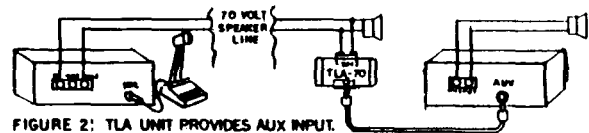
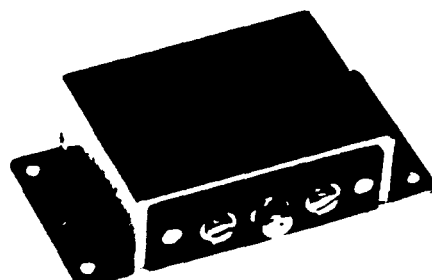
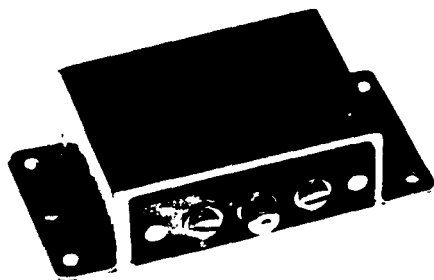


FIGURE 2: TLA UNIT PROVIDES AUX INPUT.



**MODEL TLA-25 AND TLA-70  
TELEPHONE/LINE  
ADAPTOR TRANSFORMERS**