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TECHNICAL NEWS BULLETIN

SUBJECT: RAYMER MODEL ACR-1 AUDIO CONTROLLED RELAY



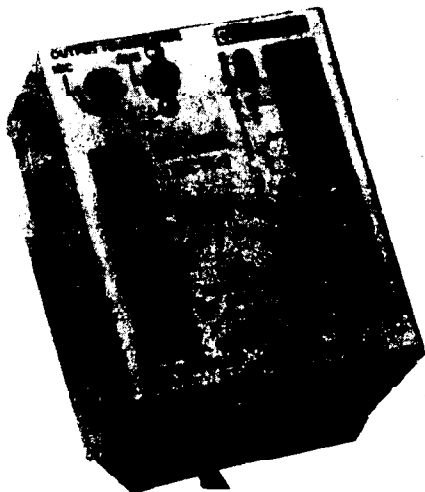
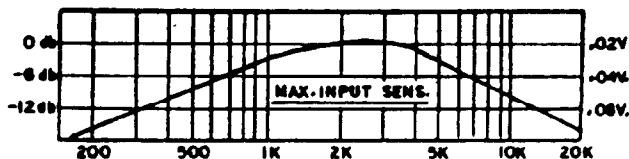
- The Raymer ACR-1 Audio-Controlled Relay is a composite device providing two functions:
1. Its input matches a 600-ohm line and couples it to the input of any audio amplifier or paging receiver.
 2. It actuates a double-pole-double-throw relay when an audio signal from any source appears across this 600-ohm input.

When used in the newer all-electronic telephone systems, the Model ACR-1 completely eliminates the problem of non-availability of contact closures. Since these systems rarely provide for contact closures of any kind, the Model ACR-1 Relay becomes the prime method whereby automatic switching may be realized without extraordinary expense. The Model ACR-1 is in fact the only means by which an economical installation is possible where Music Mute, Selective Paging, or Zone Paging are a requirement. It must be borne in mind, however, that this unit is not terminal equipment and may not be directly connected to the national telecommunication network. The ringer equivalent of this unit is Z, which means that ringing voltage should not be applied to it.

Telephone systems are only one of many paging sources for actuating the Model ACR-1 Relay since different paging sources may also come from remote locations using a leased telephone line. Likewise, a paging signal from any Raymer amplifier or receiver will actuate the Model ACR-1 when used with the Raymer TLA-1 Adaptor; also the signal from the 500-ohm output of a Raymer 701, 702, or 703 amplifier will activate the relay. The double-pole-double-throw set of contacts on the Model ACR-1 functions in the same way as the Raymer RSP-1 Relay in switch-controlled applications. Examples of typical applications with the ACR-1 are described below.

SPECIFICATIONS

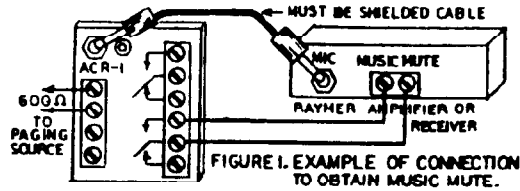
Audio Input: 600 Ohms center tapped, 0 db ref. **Amplifier Outputs:** AUX (High level) + 5 db above ref. MIC (Low level) - 20 db below ref. **Frequency Response:** ± 1 db 100 Hz to 10 KHz **Relay Sensitivity:** 20 millivolts @ 2.5 KHz Max (See chart below) **Relay Contacts:** Double Pole Double Throw, 4 amp contact ratings. **Relay Holding Delay:** ½ sec. to 3 sec. **Power Consumption:** 5 Watts, 120 Volts AC, 60 Hz. **Size:** 5½" x 3½" x 2½" **Shipping Weight:** 2 lbs.



TYPICAL APPLICATIONS

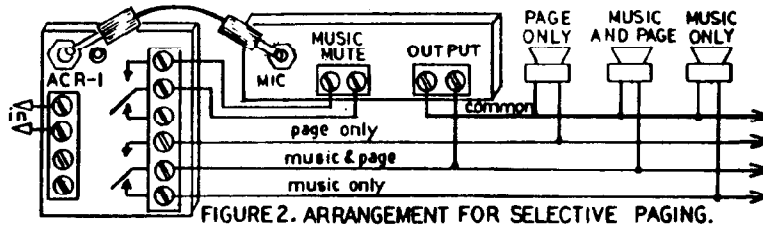
MUSIC MUTE

All Raymer amplifiers and receivers with an RMS output of 10 watts or greater are already provided with a Music-Mute function and no relays are necessary when there is a contact closure available from the phone circuit. However, in sound systems using an amplifier where no Music-Mute function is provided or there is no contact closure available, the Model ACR-1 Relay may be used to disable the music input during the page.



SELECTIVE PAGING

When the silencing of specific speakers during a page is required to eliminate the possibility of acoustic feedback, especially in areas where the page originates, the relay contacts on the Model ACR-1 may be used to disconnect these speaker lines from the amplifier during the page.



ZONE PAGING

A separate zone access line is required for each zone operation, and each of these lines must be connected to a separate Model ACR-1 Relay. In this manner each relay is actuated as that particular zone is accessed and the relay contacts may be connected in the manner required to meet the precise specifications of the installation.

