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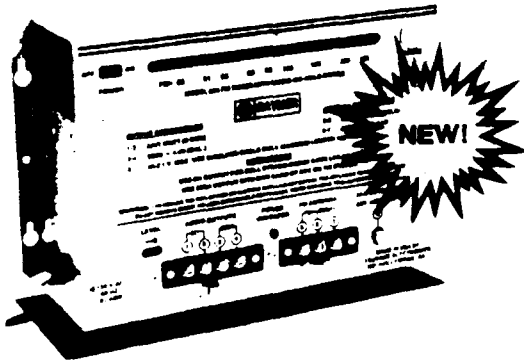
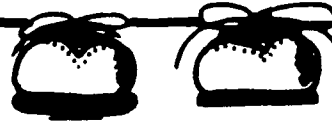


TECHNICAL NEWS BULLETIN

THE NEW RAYMER 824 TUNER-AMPLIFIER



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The new Raymer Model 824 tuner-amplifier is designed to provide radio programs to (1) Music-on-hold devices, (2) monitor speakers, and/or (3) an auxiliary amplifier — all simultaneously or one at a time provided their loads are properly matched. It is constructed so as to hang on a wall or be placed on a flat surface. No knobs are supplied inasmuch as the on-off switch, the tuning, and the volume control all require a screwdriver for operation. The unit consists of a tuner for the 88-108MHz FM band, a one watt audio amplifier, and an AC line operated power supply completely housed in a steel cabinet with provisions for surface wall mounting.

All connections and adjustments are made on the front of the unit. Three tamper resistant controls are provided: a slide switch to turn the unit on and off, a screwdriver tuning adjust with slide rule dial indicator and a thumbwheel control to set

the output level. There are three different audio outputs: a high impedance at a fixed level suitable for driving the auxiliary input of an external amplifier, a 500 ohm output adjustable to a maximum level of +4dbm to drive the audio input of a MOH card, and an 8 ohm output adjustable to a maximum of 1 watt as required to drive the BELL SYSTEM music-on-hold arrangement. Terminals are provided to connect to either a 72 ohm or 300 ohm outside FM antenna. Designed for continuous operation, this unit features a J-FET RF stage, two ceramic IF filters, an air dielectric tuning capacitor and permanent AFC to assure drift free FM reception.

Connections to the high impedance output is made by means of a phono type plug. To prevent induced hum and noise, shielded audio cable must be used when wiring this circuit. The total length of this cable should be limited to 100 feet to prevent high frequency attenuation. The audio signal of this output is fixed at one volt maximum and is not affected by the level control. This signal is sufficient to drive the auxiliary input of an external amplifier with an input impedance of 50,000 ohms or greater. Low frequency response will be attenuated if the load is less than this value.

Connection to the 8 ohm and 500 ohm outputs is made by means of screw terminals. The output signal at these terminals is adjusted by the LEVEL control. The 500 ohm output is isolated from ground and may be used to drive a balanced line at a +4dbm level (1.23V). This output may be used to drive the music input of a music-on-hold line card in a privately owned key system such as those manufactured by T.I.E. and N.E.C. Refer to the technical specifications supplied by the manufacturer for proper connections and input voltage requirements.

The 8 ohm output has a maximum power output of 1 watt (2.83V) which may be used to drive a monitor speaker or the Bell Telephone system music-on-hold arrangement. The Bell System arrangement is identified by their USOC (Universal Service Order Code) as LVH for rotary dial systems and FTP for touch tone systems. This music-on-hold arrangement must be ordered from the local telephone business office.