FM wireless intercom



PLEASE READ BEFORE USING THIS EQUIPMENT



Cat. No. 43-212

CUSTOM MANUFACTURED FOR RADIO SHACK TA DIVISION OF TANDY CORPORATION

The L' Allas

1780 Mailin

Your REALISTIC FM WIRELESS INTERCOM is a 2-unit, wireless, solid-state intercom system. The solid-state circuit is all-silicon for minimum power consumption and maximum life; 8 transistors and 1 zener diode are used, plus 5 diodes (including 2 power rectifiers). Since the circuit system is FM, it is not affected by line-noise and interference -- it remains silent until a call or message comes through. It's simple to operate and install-just plug them into a source of 120 volts (220/240 volts 50 Hz where the sets are so marked on the rear) AC and you're ready to use them.

FEATURES

- FM Modulation system by varicap diode
- Built-in Squelch circuit
- •Lock Button for "hands-free" long transmissions Example: baby sitting, dictation, monitoring
- Lighted TALK bar

SPECIFICATIONS

Power Output: Signal-to Noise Ratio: Transmitting Section Frequency: **RF** Output Power: Semiconductor Complement:

Power Requirements:

300 mW at 1 kHz (with 10% THD) 50dB at 7mV input

 $200 \text{ kHz} \pm 1 \text{ kHz}$ (193 kHz $\pm 1 \text{ kHz}$) 55 mW across 10 ohm load 8 Silicon Transistors 4 Diodes (1 Varicap Diode) 2 Rectifiers 1 Varistor

120 Volts, 60 Hz, AC, 8 Watts Max. (220/240 VAC, 50 Hz, 8 Watts Max.



INSTALLATION AND OPERATION

These units can be located almost anywhere in a house, office or shop, as long as there is an AC outlet conveniently available.

Determine the best location for the intercom units and plug each into AC outlets (120 volts, 60 Hz or 220/240 volts, 50 Hz where the sets are so marked on the rear).

Adjust VOLUME control to click "on" and set to about "3". To talk, press TALK bar and speak in a normal voice from arm's length (or less if desired, but not less than 3-5" (7 x 13cm) from the speaker/mic). At the receiving station, adjust VOLUME as desired.

To call a station, press and release CALL button; this produces a tone in the other unit and thus signals a call is ready. When the other station answers, press TALK and proceed with your message.

For long messages, press LOCK button down. This locks-in the Talk function for hands-free operation. To listen, press TALK bar to release the LOCK button.

The LOCK position is handy for use as a "baby sitter" or other monitoring functions, or for long periods of dictation. Thus, you can set one unit to LOCK and then listen from another unit.

OPERATIONAL NOTES

Additional intercom units can be added to the system if you want; however, they must be of the same type (other types of wireless intercoms will not work with this FM system).

These intercoms can be installed anywhere in the house, office or shop, as long as they are all connected to the same power line distribution transformer. Practically all residential and many commercial locations meet this requirement. Do not operate them too close together, or feedback between units will cause squeal.

Units can be separated up to about 300 feet (90m), as long as the AC line is connected to the same side of the power distribution transformer. Thus, they may operate between adjacent homes, assuming their power comes from the same distribution transformer.

If communications is distorted, it may be you are talking too close to the speaker/microphone. Speak in a normal voice 1-3 feet (30-90cm) from the intercom for best results.

An adjustable squelch control is accessible through a hole in the back of the case. For normal conditions, no adjustment is required (the factory setting will be adequate). However, for optimum results, especially in very quiet or very noisy locations (electrical noise), adjust squelch as follows:

With the unit plugged in and no signal, adjust squelch with a small screwdriver until a hiss is heard. Slowly turn in the opposite direction to the point where the hiss just ceases. This is the optimum setting for your location.



(3) CAPACITANCE VALUES ARE INDICATED IN MICROPARAOS UNLESS OTHERWISE SHOWN (P + MICRO - MICROPARADS)

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SCHEMATIC DIAGRAM

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