

Intercom Systems

by Wayne Parsons

When you're getting started in the motorcar hobby there're many items competing for your budget dollars. One of my last optional purchases was an "aircraft type" portable intercom system. I wish it had been my first. Your conversations when operating the motorcar compete with track, wind, and car noise. You find yourself asking, "say again" and "what did you say?" With the aircraft type intercom system you can speak in a near normal tone and hear the radio clearly.

The basic system consists of two headsets connected to a portable intercom box the size of two cigarette pecks. Order a "portable" system as opposed to one that mounts in the airplane instrument panel. The headset earmuffs reduce the outside noise by 24 decibels; a similar noise reduction to that of pistol and rifle muffs. The headset boom microphone cancels out the background noise and is voice-activated (VOX) meaning it turns on only when you speak. I recommend headsets that have individual volume controls. A nine-volt battery that will last up to 40 hours powers the intercom box. Some boxes will take inputs from CD players, cell phones and railroad type two-way radios.

My system connects into the back of my Motorola radio enabling me to listen, and with a push to transmit (PTT) button, broadcast directly from the headset just as airplane pilots do. Not all radios have connections that the intercom can plug into. Sometimes modifications to the radio and intercom are necessary; consult a technician.

The cost of a suitable intercom for two people is between \$270 and \$525, plus tax. That breaks down as headsets between \$95 to \$165 and intercom boxes between \$90 and \$190. More expensive headsets fit better and have better microphones. All intercoms have at least one plug for connection to a radio, the more expensive have inputs for CD's and up to four headsets. Push to transmit (PTT) buttons cost \$10. Headsets for children cost \$95. Be wary of being "moved up" to more expensive equipment. Fancy headsets can cost \$700 each.

Headsets and intercoms can also have something called active noise reduction (ANR). This circuitry reduces perceived noise by generating "white noise" inside the earmuff: that is out of phase with outside noise. I don't recommend ANR on a cost benefit basis. Also mono systems will save you \$30 over stereo systems.

Here are some discount supply houses with toll free order numbers.

1. San-Val Discount Aircraft Parts, Van Nuys, CA 800-423-3281. Inside Calif. 800-924-9658. Sigtronics Headset S-40, \$162 ea. Sigtronics Transcom II intercom \$187. PTT switch \$9. (This is my system.)
2. Aircraft Spruce Avionics, Griffin, GA 800-831-2949. Sigtronics systems with prices identical to San-Val.
3. Chief Aircraft Inc., Grants Pass, OR 800-447-3408. Flight Com. Combos of two 4DLX headsets, IISx two place intercom, carry bag & PTT, \$345.

4. Pacific Coast Avionics, Aurora, OR. 800-353-0370. In-house brand package prices of \$295 and \$350 for two headsets, intercom, PTT and bag.

5. Man/Golden Discount Sales, San Diego, CA 800-348-0014. In house brand package price for MG400 intercom with low-end MG40 headsets \$270, with high-end MG20 headsets \$360. Price includes PTT button and padded case. Free surface shipping on some orders. 6. Eastern Avionics, Punta Gorda, FL 800-628-2667. Good prices on an in house brand called Millennia.

7. West Wind, San Francisco, CA 800-456-1665. Child's headset for \$94.

8. Hart Aviation, Savannah, GA 800-659-7102. Low prices on Sigtronics.

9. Gulf Coast Avionics, Tampa, FL 800-474-9714. In house brand package prices of \$295 and \$350.

If you live near a general aviation airport, check out displays at the near by aviation supply companies. Pick up a copy of "Trade-A-Plane" (\$3.00) and look at the ads. The addition of an intercom system will make operating your motorcar much more fun.

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Brake Light Installation

By Jon Labyak

I have found an easy way to hook up brake lights. All you need is a switch that is used on heavy equipment for back-up alarms. The one I used is make by *Velvac*, New Berlin, Wisconsin. The part number is 697011. You won't find this switch at an auto parts store but at a heavy equipment or truck parts dealer. It is a spring shaft mounted on a plastic base which has two mounting holes.

On my MT-19 A, it is simply bolted to the left inside of the engine cover. Mount it so the spring contacts the brake lever as it is moved ahead. This activates the switch. Power for the brake lights is supplied from the ignition switch. If there is not an in-line fuse, install one. (14 amp). You can then run a wire to a pair of regular taillights.

Editor's Note: On two stroke Fairmonts with buzz box ignitions, the ignition switch is on the ground side. You will have to go directly to the battery for power.

If the spring on the switch is not long enough to reach the brake lever, as on my car, install a spacer block under the switch base. I hope this advice simplifies your brake light installation.