

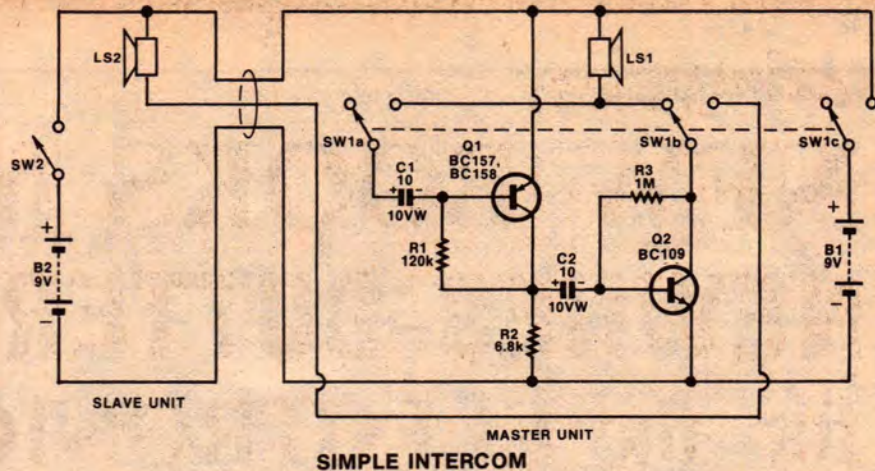
Simple Intercom

Many readers could, no doubt, find a use for an intercom, but doubt whether the expenditure on a commercial unit would be justified. The unit described here is a relatively low-cost project. It can easily be used as a baby alarm — it is certainly sensitive enough — merely by switching one of the units on permanently.

The unit is not fitted with a buzzer as calling over the unit is usually enough to draw the attention of the distant party. It cannot be used for eavesdropping (an undesirable, "Big Brother" type feature) and thus its installation can cause no offence.

The basis of the intercom is a simple amplifier which boosts the "microphone" output to feed a speaker.

The amplifier is slightly unusual and is very simple. It uses a PNP and an NPN transistor and is RC coupled. The switching is straightforward; two batteries are used, one each in the



master and slave section.

In the normal position (as shown in the circuit diagram) no current is drawn and the switch on the master is set to receive calls from the slave. The only thing the slave has to do is apply battery voltage to the master by making SW2.

When the master makes a call the output from the amplifier is fed to the slave loudspeaker, its own loudspeaker is switched to the input, becoming the microphone, and the slave's microphone becomes the loudspeaker. The master unit will, of course, override the slave.