

### Simplexor



replay the recorded message at user specified intervals of 0-10 minutes. A typical application is for announcing emergency road conditions for construction delays over broadcast bands.

#### **SELECTIVE REPEAT**

version is available to limit the rebroadcasts to selected transmissions. It includes all features of the announcement version and supports an additional input called "decode". This input can be

connected to an external decode device such as a two-tone decoder or subaudible decoder to allow the unit to selectively repeat the message or page. This feature is useful where operators don't want to have all communications on the channel repeated.

The Model 19 Simplexor is perfect for expanding radio coverage into previously inaccessible areas such as remote valleys, tunnels, hospitals, schools, dense downtown areas, and other difficult to penetrate radio environments. Paging companies, business and industrial radio users, and public safety radio users will all find that the Model 19 is a very useful addition to their radio systems.

The Model 19 is also a powerful tool for evaluating potential radio sites or radio system coverage 'problem areas'. Instead of tying up skilled technicians during a field survey, a Model 19 Simplexor can be placed at the proposed radio site, and a single technician can drive through the site's coverage area. Any time a coverage check is required, the technician need only transmit a brief message to the listening Model 19. When the technician stops transmitting, the Model 19 Simplexor relays the technician's recorded audio back, making evaluation of the location simple.

The Model 19 Simplexor can also be used as a simple single channel 'mobile extender', relaying distant dispatch and mobile traffic to handheld radio users operating near a vehicle equipped with a Model 19. The low power portable transmissions are also relayed back to the dispatcher with the full power of the mobile radio to which the Model 19 is connected, making it easy for the dispatcher to stay in constant contact with widely dispersed radio users.

#### **FEATURES**

- **Converts any simplex radio into a simplex "store-and-forward" repeater**
- **Extends the range of simplex radio systems**
- **Cost effective**
- **No need to replace existing radio equipment**
- **No license modifications required**
- **Ideal for expanding voice or two-tone paging system coverage**
- **Can be used to create a low cost 'mobile extender'**

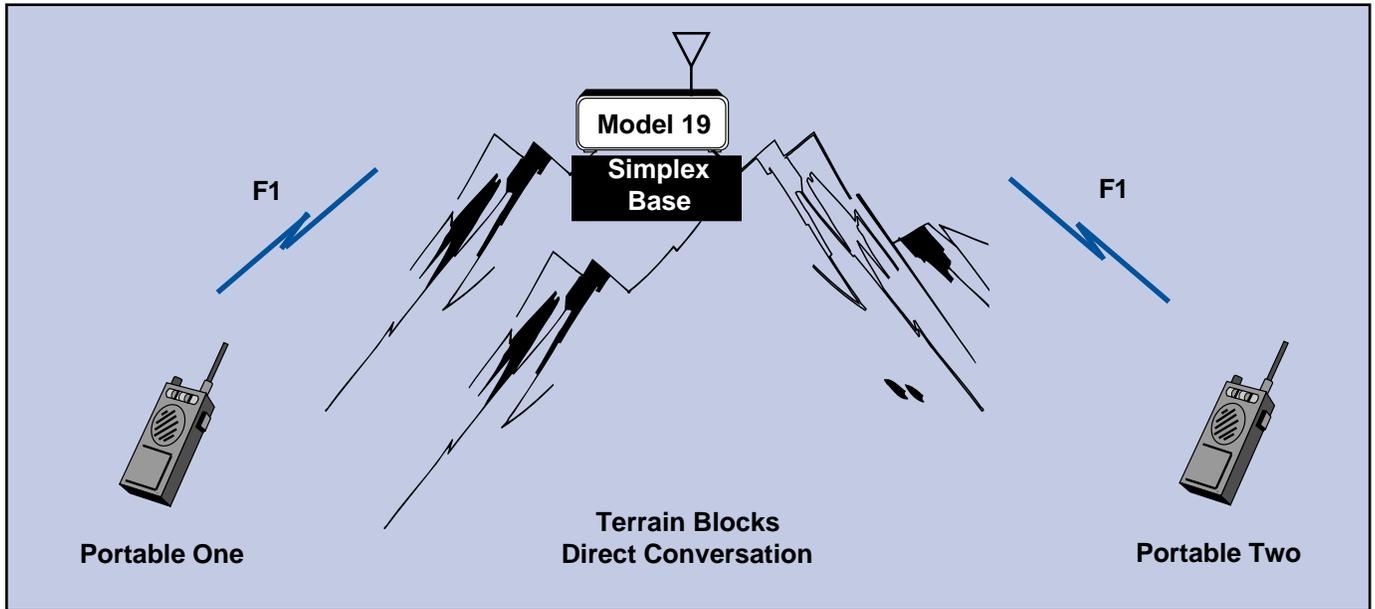
#### **OVERVIEW**

The Zetron Model 19 Simplexor makes radio system range expansion simpler and less expensive than ever. Existing simplex radio systems can have their usable mobile-to-mobile or portable-to-portable range expanded two to three times using a Model 19 and any simplex base or mobile radio.

**BASIC VERSION.** The Model 19 SIMPLEXOR connects to the simplex base or mobile radio's discriminator audio output. When the Model 19 detects a valid signal in its COR input, it begins recording the received audio. Up to 40 seconds of clean, clear audio is stored in digital memory. When the carrier is dropped, the Model 19 keys the radio and retransmits the recorded audio.

**ANNOUNCEMENT** version includes all of the features of the basic version plus the ability to replay the recorded messages twice -- useful in noisy environments or when reaching the limits of the service area. It can be set to continuously

## TYPICAL MODEL 19 SYSTEM



**Step One:** Portable one transmits; the Model 19 records audio from portable one received by the simplex base station.

**Step Two:** The Model 19 waits until the simplex channel is clear and relays portable one's message to portable two on the same frequency. In most cases, the replay is immediate. Portable one is able to hear the repeated message as well. Portable two uses the system in the same way to respond.

## SPECIFICATIONS

### GENERAL

Power	11-16 VDC
Temperature	0 to 65 degrees Celsius
Size	5.5" W x 6.25" D x 1.4" H
Weight	1 pound

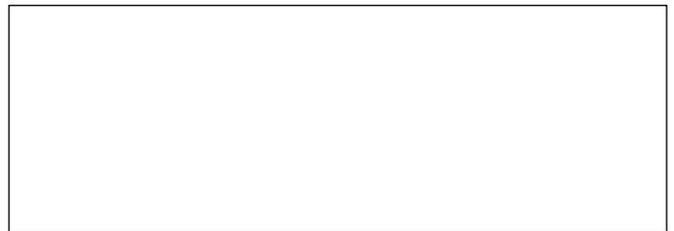
### RADIO INTERFACE

PTT	FET pull to ground
COR/ External Decode	External 'valid' carrier or CTCSS/DCS decode logic input. Variable level, adjustable polarity
Tx Audio	-40 to +6 dBm. Hi/Lo range selection 1K Ohm output
Rx Audio	-40 to +10 dBm. Hi/Lo range selection. 50K Ohm input. 25 mV to 6 V P-P

### ADDITIONAL SPECIFICATIONS

Indicators	Test, Carrier, Transmit, Power
Switches	Test
Adjustments	Rx Audio Level, Tx Audio Level, COR Level, COR Hold Time
Frequency Response	300-2500Hz. Suitable for most two-tone paging applications

For more information on this and other Zetron products, contact:



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See Zetron price list for option pricing. Specifications subject to change without notice. Literature number: 005-0406C May 1997