

## Features

- Includes Interface and Radio in One Compact Unit
- Compatible with GAI-TRONICS Page/Party®, SmartSeries™ and ICS systems
- Universal AC (85-264V) or 24 V dc Operation
- Hybrid Circuitry to Eliminate Sidetone
- Individual Volume Adjustment to and from Radio
- Off-hook Detection on Party Line
- 16-level VOX Detection Circuitry for Monitoring Page or Party Line Audio
- 33Ω Termination for Page and Party Line
- Selectable High or Low Radio Output Power
- Relay Output Activated by Radio Received Frequency



## Options

- Model 370-400 - UHF – 450-470 MHz
- Model 370-420 - VHF – 154-174 MHz
- Model 370-400FR - UHF – 450-470 MHz: Pre-programmed at Factory
- Model 370-420FR - VHF – 156-174 MHz: Pre-programmed at Factory

The **Model 370-400 UHF** and **370-420 VHF Page/Party® Radio Couplers** enable a GAI-Tronics Page/Party® system to communicate with wireless radio systems. Radio users, whether outside the facility at a remote location or inside the plant, can seamlessly communicate with Page/Party® users.

The coupler combines interface circuitry with a radio module in one compact unit.

The coupler operates in a half-duplex manner; audio is only heard in one direction at a time. Audio direction is controlled by a VOX circuit on the Page/Party® side, and a carrier detector on the radio.

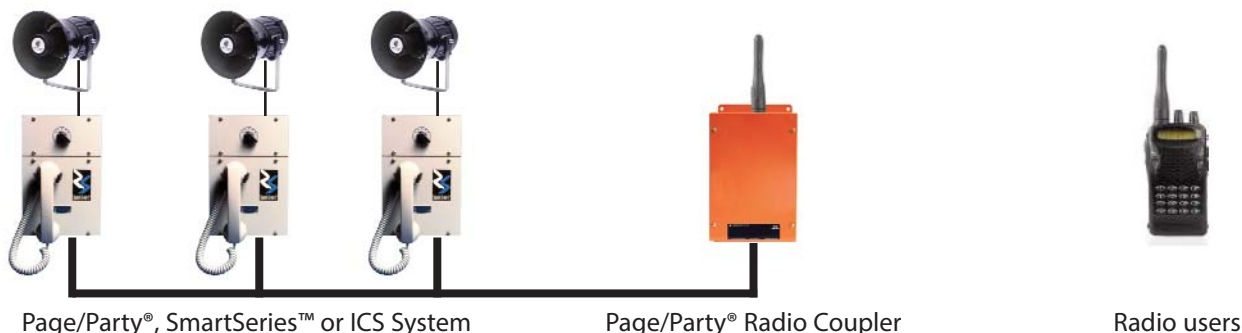
The coupler converts audio levels from the Page/Party® system to an appropriate level for the radio. Audio is then transmitted on the selected frequency programmed into the radio.

The coupler also senses if any stations in the Page/Party® system are off-hook on the connected party line. If all stations are on-hook, page line audio will be routed to the radio; otherwise party line audio will be used. Party line audio takes precedence over page line audio.

The coupler converts the radio signal to the appropriate signal levels for the Page/Party® system. The module has a relay output that activates whenever radio traffic is detected.

The coupler is subject to FCC license requirements when used in the USA.

### Typical Application



### Specifications

#### AC/DC Power

##### AC Power Supply

Input Voltage ..... 120/230 V ac (nominal), 50/60 Hz  
Current draw @ nominal 120 V ac ..... 270 mA  
Current draw @ nominal 230 V ac ..... 150 mA

##### DC Power Supply

Input Voltage ..... 24 V dc  
Current draw @ nominal 24 V dc ..... 1 amp

#### Audio

33-ohm output with +/-3 kHz deviation wideband:

..... 1.5 V<sub>RMS</sub>, factory aligned  
..... 2.8 V<sub>RMS</sub> maximum

Distortion ..... <1.5% @ 1 kHz

Radio output deviation with 1.5 V<sub>RMS</sub> from 33-ohm line :

..... +/-3 kHz wideband, factory aligned

VOX threshold ..... 20-380 mV (selectable)

VOX activation time ..... <50 milliseconds

VOX hold time ..... >1 second

#### Off-Hook Monitoring

Activation Time ..... <50 milliseconds

Deactivation Time ..... <50 milliseconds

#### Relay Outputs

Maximum load ..... 2 A @ 30 V dc

..... 0.5 A @ 125 V ac

#### Mechanical

Construction/finish ..... 16 gauge cold-rolled steel;  
safety orange powder coating

Mounting ..... Indoor wall or column;  
four 0.31-inch mounting holes

Dimensions ..... 12.0 x 8.0 x 5.0 inches

Shipping Weight ..... 10.5 lbs

Net Weight ..... 9.5 lbs

#### Environmental

Operating temperature range ..... -4° F to 140° F

Relative humidity ..... Non-condensing 85% maximum

#### RF Module

##### General

Frequency Range ..... VHF: 154–174 MHz

..... UHF: 450–470 MHz

Antenna Impedance ..... 50 Ω

Encoder/decoder ..... CTCSS tone, DCS digital

##### Receiver (measurement procedures made per

##### ANSI/TIA/EIA-603)

Sensitivity (12 dB SINAD) ..... 0.25 μV

Inter-modulation ..... VHF @ -65 dB;

..... UHF @ -60 dB

Audio output ..... 700 mV<sub>RMS</sub> with 3 kHz-deviated signal

##### Transmitter (measurement procedures made per

##### ANSI/TIA/EIA-603)

RF Output ..... 2 or 5 watts

Spurious and harmonic emissions ..... < -20 dBm maximum

Audio output ..... 300 mV<sub>RMS</sub> for 3 kHz-deviated signal

Modulation sensitivity ..... 100 mV<sub>RMS</sub> @ 60% peak dev.

#### Approvals

FCC Identifier ..... VHF: AIERT 17-142

..... UHF: AIERT 17-442

FCC Compliance ..... Part 90

IC Certification ..... VHF: 1084A-RIT 17142

#### Accessories

- Radio programming kit – 19101-024
- UHF “stubby” antenna – 19502-009
- UHF ground plane antenna – CN3614