Page/Party® Radio Couplers
370-400 (UHF) and 370-420 (VHF)

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.
Specifications

AC/DC Power
AC Power Supply
Input Voltage: 120/230 V ac (nominal), 50/60 Hz
Current draw at nominal 120 V ac: 270 mA
Current draw at nominal 230 V ac: 150 mA

DC Power Supply
Input Voltage: 24 V dc
Current draw at nominal 24 V dc: 1 amp

Audio
33-ohm output with +/-3 kHz deviation wideband:
1.5 Vrms, factory aligned
2.8 Vrms maximum

Distortion: <1.5% @ 1 kHz
Radio output deviation with 1.5 Vrms 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 mVrms 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 mVRMS for 3 kHz-deviated signal
Modulation sensitivity: 100 mVRMS @ 60% peak dev.

Approvals
FCC Identifier:
VHF: AIERT 17–142
UHF: AIERT 17–442
FCC Compliance: VHF: Part 90
IC Certification: VHF: 1084A-RIT 17142

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