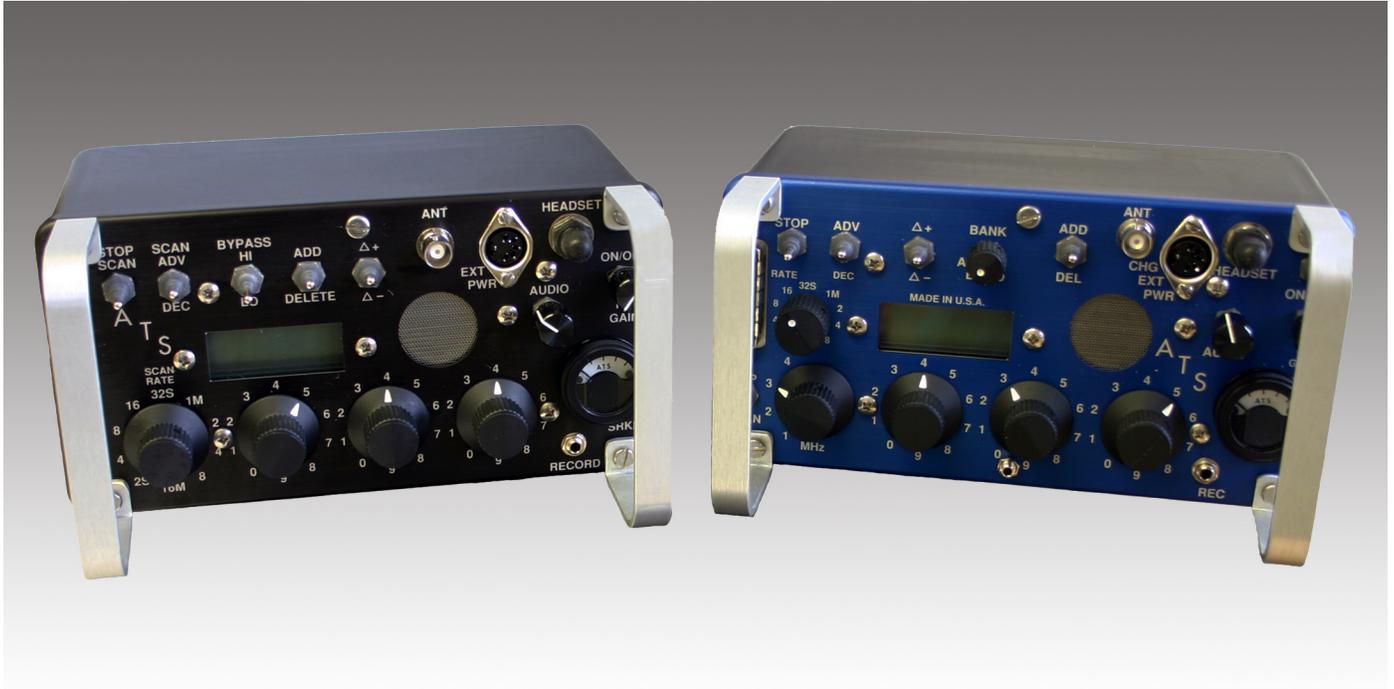


# ATS R2000 / R4000 Scientific Receivers

Finding Solutions. Delivering Results.



## With performance features and proven reliability, these receivers are an exceptional value.

ATS models R2000 and R4000 are excellent receivers for most aerial, terrestrial and aquatic studies. They offer leading edge technology and outstanding performance.

Both models feature programmable, automatic or manual scanning over a 2 MHz or 4 MHz frequency range. Their 1 kHz channel spacing tracks up to 200 or 400 targets. The user-friendly front panel gives the operator full control over all functions including scan rate, add/delete frequencies, RF gain, audio level, tone decoder threshold, and more. Both units feature state-of-the-art circuitry for exceptional sensitivity, frequency stability, and low noise.

Both receivers are designed for easy field operation. Their large 1/2" LCD display is backlit for night use. A padded Nylon case, battery charger, power cord and detailed operation manual are included with each receiver.

The R2000 and R4000 are lightweight, compact and ruggedly built to withstand heavy field use and extreme environmental conditions. Each can be powered by an external 12 volt DC battery or its own built-in NiCad battery pack for up to 8 hours of use.

ATS R2000 and R4000 receivers offer high performance with high value.

- 2 or 4 MHz Frequency Range
- 1 kHz Channel Spacing
- Improved RF Gain Control For More Precise Direction Finding
- Excellent Frequency Stability
- High Sensitivity/Low Noise
- Sensitive Signal Meter
- Ruggedly Built For Field Use
- Easy Operation
- 4 Distinct Memory Banks (R4000)
- Built-in Computer Interface (R4000)
- Delta Tune Drift Compensation
- Rechargeable NiCad Batteries
- Separate RF Gain And Audio Level Controls
- Battery-Backed Memory
- Auto-Shut Off On Low Battery For Longer Battery Life

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## ATS R2000 / R4000 Scientific Receivers

### GENERAL

- Frequency range: R2000 Any Specified 2 MHz range from 30 to 220 MHz  
R4000 Any Specified 4 MHz range from 140 to 220 MHz
- Channel spacing: 1 kHz
- Input impedance: 50 ohms
- Minimum discernible signal (MDS): -150 dBm (0.007 uv into 50 ohms)
- Noise figure: 3 dB maximum
- Speaker: 8 ohms
- Tone decoder detection range: ± 2 kHz (Model R4000)
- Tone decoder detection level: -120 dBm minimum (Model R4000)
- Frequency stability: ± 1 kHz -20°C to +50°C
- Delta tune: +4 kHz; -4 kHz
- IF frequency: 10.7 MHz
- IF bandwidth: 6 dB ± 2 kHz; 80 dB ± 7 kHz
- Image rejection: >150 dB
- RF gain control range: >130 dB
- Operating voltage range: 9 to 18 volts DC
- Dwell time (scan rate): Selectable, 2 sec. to 16 min. (10 positions)

### CONTROLS

- Frequency selectors (4)
- Audio level
- Delta tune
- RF gain
- Increment frequency up/down
- Tone decoder threshold (R4000)
- Memory bank select (R4000)
- Auto scan/memory bypass
- Receiver on/off
- Dwell time (scan rate)
- Add-delete to memory
- Stop scan

### MEMORY

- All frequencies programmable in each bank
- Four distinct banks (R4000)
- Sequentially scanned
- Battery backed
- Delete all frequencies in each bank
- Delete frequencies individually with single switch while scanning or on standby

### DISPLAYS

- Selected frequency: LCD (0.5" digits) with backlight for night use
- Memory status: Colon in display indicates frequency stored in memory
- Battery status: "Lo Bat" indicator flashes when battery voltage is low
- Signal detection: "+" present in display indicates detection by tone decoder (R4000)
- Signal level: 0-1 mA meter

### CONNECTIONS

- Antenna: BNC - female
- Headset: Receptacle for 0.25" phone plug
- Signal level: 0.125" phone receptacle for external 0.1 mA current meter
- External power/recharge receptacle: 5-pin DIN
- Computer interface (R4000): 25-pin D-sub filtered connection (socket)

### POWER

- 12 volts DC nominal: 130 mA drain nominal
- Internal: 1.2 amp-hour NiCad battery pack; 8-hour nominal operating time
- External: 9 to 18 volts, negative ground; switches automatically to external power

### COMPUTER INTERFACE (R4000)

- 4 digits BCD (active high)
- Computer control select
- 5 volt DC regulated (5 mA max.)
- 12 volt DC unregulated
- Tone decoder output (active low)
- Signal strength

### PHYSICAL

- Size: 11 cm wide x 21 cm long x 18 cm high (4.3" x 8.3" x 7")
- Weight: 2.3 kg (5 lbs)
- Accessories (included): External power cord, battery charger, padded nylon case, instruction manual
- Accessories (optional): David Clark aviation-grade headset, DC-DC charger, external battery pack

### ENVIRONMENTAL

- Operating temperature: -20°C to +50°C
- Storage temperature: -70°C to +60°C
- Humidity: 95% non-condensing

### WARRANTY

- One year parts and labor on materials and workmanship

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