

PRC-434G/CS

Advanced Dual Mode Personal Survival Radio with GPS



The advanced PRC-434G/CS (Cospas-Sarsat) transponder is a small but powerful long-endurance Personal Survival Radio (PSR) that provides a complete solution for military or paramilitary applications in combat and peacetime environments. With its embedded GPS receiver, large LCD display, and state-of-the-art electronics, the PRC-434G/CS assures precise global positioning, easy navigation and extensive interrogatable two-way messaging. Developed and produced by Elbit Systems SAR and Data Links (formerly Tadiran Spectralink), the PRC-434G/CS is fully interoperable with the ARS-700 and ARS-700G airborne personnel locator systems, and compatible with other NATO SAR systems such as ARS(12)V and RCS-125G.

Operational Highlights

- GPS Location response to interrogations from the airborne system, from another PSR on the ground
- Transponder operation, in response to interrogation with a selective code (one million possible codes)
- Operation at two emergency frequencies (121.5 and 243 MHz)
- Powered by LiMnO₂ battery for 30 hours, at a Tx/Rx ratio of 1:10 (over 96 hours in Sleep mode)
- Ten fixed/preprogrammed channels
- Multiple activation capabilities
- External earphone interconnection
- Radio status indication (self-test)
- Programmable data messages can be transmitted from/to the PSR
- One-hand operation
- Integral antenna and option for external antennas

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PRC-434G/CS Technical Characteristics

Characteristic

Frequency Range
Number of Channels
Programmable UHF Channels
Non-programmable VHF Channel
Navigation
Position Accuracy
Modulation Type

Activation

Remote Activation

Transmit Power Output

Battery Type

Battery Life

Battery Life Monitor

Water-tightness

Size (battery & antenna included)

Weight

Operating Temperatures

Cospas/Sarsat Geolocation

Performance

225-299.975 MHz + 121.5MHz
3000 in 25 kHz steps
10 + 1 guard
1 guard (121.5 MHz)
40 programmable waypoints
GPS - C/A Code/25m
· AM (Voice or Swept Tone)
· FSK (narrow band data)
· OOK, PSK for ASARS (transponder)
· Manual by survivor
· Automatic by g-switch, magnetic lanyard, water sensor
· Beacon mode activation
· Range and direction interrogation activation
· GPS Lat./Long. interrogation
· Navigation mode activation
· Data transfer mode activation
· ~1W in UHF frequencies
· .1W at 121.5 MHz
LiMnO₂
>30 hrs. @ 1:10 T/R ratio
"Fuel-Gage" circuitry in battery pack
Withstands 10m water depth immersion
154mm x 85mm x 45mm (6" x 3.35" x 1.77") H x W x D
<850 gr.
-30°C to +55°C
Transmission of Cospas-Sarsat protocol (406 MHz)

