

The Carmanah ARCAL system provides air-to-ground (Type I) radio control of Carmanah solar airfield products. Pilots can remotely activate and change intensities of runway or Approach Lighting Systems by simply keying the microphone button of their standard VHF communication transmitter.

Airport operators benefit from maximum runway usage while minimizing energy expenditure and increasing the performance capabilities of their solar systems.

- Designed for outdoor, unattended all-weather operation. Eliminates costly trenching and installation of control lines to remote facilities
- No special airborne equipment or adapters required
- Lights are activated remotely from the air and remain on at the selected intensity for a period of 15 minutes. Additional timer settings of 1, 30, 45 and 60 minutes are available
- Receiver may be programmed to operate on any frequency in the specified VHF range
- Selectable decoder enable/disable prevents multiple relay operation during normal daytime operations
- Optional Remote Maintenance Module (RMM) available
- Configurable to Type J or Type K ARCAL via Dip switch selection (Canada)

ALLOW PILOTS TO ACTIVATE AND MANAGE THE INTENSITY OF AIRFIELD LIGHTS ON APPROACH.



### Compliance with Standards

- FAA:** L-854 AC 150/5345-49 (Current Edition)  
ETL Certified
- ICAO:** Complies with FCC Part 15 rules and regulations  
Aerodrome Design Manual, Part 5 para. 3.4.6
- FCC:** 47 CFR, Part 15:2007 (Class A)
- Canada:** TP 312 - Aerodromes Standards and  
Recommended Practices

### SPECIFICATIONS

Receiver	Single-conversion superheterodyne design. Adjustable sensitivity from 1 to 30 microvolts permitting a control range of 1 to 20 miles (1.6 to 32 km).
Commands	Three intensity settings controlled by a series of 3, 5 or 7 pulses of radio frequency energy within a five-second period.
Power	Input      120 or 240 VAC, ±10%, <b>Voltage    Maximum VA</b> 120 VAC    15 240 VAC    18 Typical standby power is 4 VA at 12 VDC for calculating solar power autonomy.
	Output:      3 A relay contact rating, 0 to 3 amps
Frequency	118.0 to 136.0 MHz VHF. Digital control electronics allow operating frequency to be easily reprogrammed by the user.
Construction	Nema 4 (indoor/outdoor) enclosure Built-in speaker with volume control Omnidirectional ground-plane antenna with an additional 50 feet of cable for remote mounting
Operating Temperature	-67 to 131 °F (-55 to 55 °C)
Humidity	0 to 100%
Altitude	0 to 6,600 ft (2000 m)

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