



Maximum RFID

LR-2000™

Extra Long-Range Reader

AWID's LR-2000™ Long-Range Reader is a UHF tag and card reader used in RFID applications like gate access for vehicles, and physical access for people. Its electronics and antenna are integrated in a single compact enclosure. The LR-2000 is optimally designed for Automatic Vehicle Identification (AVI) and Access Control applications such as gate control in a parking facility. It also provides identification and access for people at doorways, wheelchairs at elevators, and gurneys in hospital entrances. The LR-2000 Reader assures security by use of AWID's proprietary encryption for communications between the reader and its UHF vehicle tags and hand-held cards.

The LR-2000 reader is suitable for outdoor applications. (A protective polycarbonate housing may be required – see Note below.) The LR-2000 offers price:performance advantage over conventional long-range proximity card and active-tag UHF systems. The LR-2000 can be combined with AWID's UA-612 door access reader, allowing the same hand-held cards to be used for both vehicle parking access and door access in buildings.



The LR-2000 operates in the license-free 902-928 MHz UHF band. It combines effective UHF technology with economical passive tags and cards, programmable read repetition rate and RF field strength, and simultaneous Wiegand and RS-232 data outputs. It can be interfaced with all standard access and AVI systems. The reader is manufactured in an ISO-9001 certified facility assuring the highest quality standard. The LR-2000 offers an impressive combination of single unit construction, small size, and attractive appearance. Tag reading distance is commonly up to 25 feet and sometimes more, depending on reader mounting, credential type, and environment.

*NOTE: WHEN INSTALLED OUTDOORS AND EXPOSED TO RAIN OR SNOW, OR TO DIRECT SUN IN A HOT ENVIRONMENT, THE LR-2000 MUST BE MOUNTED INSIDE A HOUSING WITH MINIMUM IP64 RATING.

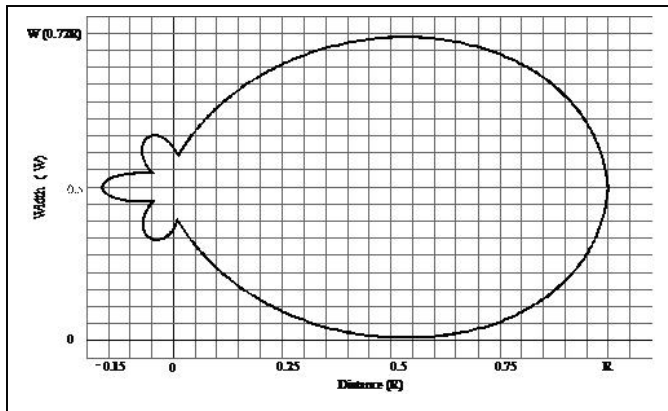
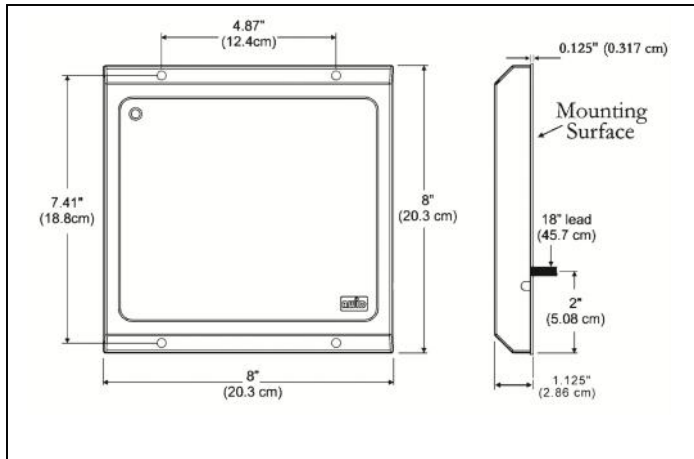


FEATURES

- **Longer reading distance ...**
Up to 25 feet between reader and tag
- **Small, attractive reader ...**
Single unit with antenna, 8"x8"x1-1/8"
- **Easy reader installation ...**
No reader programming, simple wiring
- **Wide selection of credentials ...**
5 vehicle tags and 2 hand-held cards
- **Unlimited tag or card life ...**
Passive, battery-free credentials
- **Data output to fit the system ...**
Selectable read repeat rate
- **No interference between readers, and no cross-reading between lanes ...**
Programmable RF field strength
- **RF transmission only as needed ...**
Uses vehicle sensor to arm the RF circuit
- **Dual antenna for difficult sites ...**
Optional LR-2000 HiLo MA reader set
- **LR-2000 mixes with other readers ...**
Uses same code format as prox readers
- **Easy interfacing to control systems ...**
Both Wiegand and RS-232 data output
- **Complies with certifications ...**
ISO-9001:2000; FCC Part 15; IC, RoHS
- **Ideal upgrade from old systems ...**
Hands-free car ID; cards for people ID
- **Eliminates stop-and-wait entry ...**
Cars continue moving past reader
- **For outdoor applications ...**
*Housing required for rain and sun**
- **Easy to buy and own ...**
Installer needs no FCC registration

LR-2000™

UHF Extra Long-Range Reader



ACCESSORIES AND SUPPLIES

- **LR Installation Kit** - A requirement for all installers. An effective way to demonstrate the LR-2000, to prove its operation, to measure its performance, to locate tags and, to aim the reader. A one-time purchase.
- **Power supply** - Each LR-2000 requires a separate, independent, dedicated power supply. Ask AWID for specifications. AWID offers PS-123.3A-0-0.
- **Cable for power and data** - Correct cable assures good reader performance. Ask AWID for specifications.
- **Protective housing** - To avoid rain, snow, hot sunlight and vandalism, AWID suggests Model PCH196 Lexan housing from The Housing Company.
- **Mounting devices** - Consult with supplier for poles, posts, pedestals, bollards, barriers, etc.
- **System components** - Consult with supplier for access control package, gates, vehicle sensors, etc.
- **Installation & Operation Manual** - Download Manual from AWID's Web site.

CREDENTIAL OPTIONS

- **Vehicle-mounting tags** - Tags for permanent or movable applications, inside or outside vehicles. Types are windshield (*WS-UHF*), hangtag (*HT-UHF*), rear-view mirror (*RV-UHF*), metal-mount (*MT-UHF*), and sun-visor (*VT-UHF*).
- **Hand-held cards** - For presenting to reader. Types are clamshell (*CS-UHF*) and graphics (*GR-UHF*). Use these cards also with UA-612 reader.

OPERATING CHARACTERISTICS

Reading Distance:

Up to 25 feet (7.6 meters)

Frequency Band:

902 to 928 MHz (in USA)
Frequency Hopping technology

Antenna Output:

Circular-polarized RF field

Power Supply:

7 to 15 VDC - regulated
(At 12 VDC) Rated for 1.5 A or more
Separate, independent, dedicated

Communications Protocol:

Wiegand and RS-232, simultaneous

Code Formats:

Determined by AWID's tags & cards
programmed with 26 bits to 50 bits

Cables (for Wiegand Interface):

Power - 2 conductors, 18 gauge
Data - 3 conductors, 22 gauge
Stranded, color-coded, overall shielded
Up to 500 feet long

Field-Programmable Features:

Read repetition rate; RF power level

PHYSICAL CHARACTERISTICS

Dimensions:

8 x 8 x 1.125 inches (20.3 x 20.3 x 2.86 cm)

Weight:

37.5 oz (1.06 kg)

Material (Color):

ABS enclosure (beige); aluminum back-plate

Cable (Integrated with Reader):

10 conductors, 32 inches long
Overall shielded, plastic jacket

Mounting (Supplied by Installer):

Pan-and-tilt adjustment for aiming

ENVIRONMENT

Operating Temperature:

At 50% Duty Cycle -
-35°C to +65°C (-31°F to +150°F)
At 100% Duty Cycle -
-35°C to +45°C (-31°F to +115°F)

Operating Humidity:

0% to 95% non-condensing

Protection Class:

IP65 Weatherproof

Avoiding Interference:

Optimize reader performance by avoiding
sources of RF - fluorescent and other arc
lighting, UHF transmitters, other readers.

CERTIFICATION

ISO-9001:2000; FCC Part 15; IC; RoHS

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