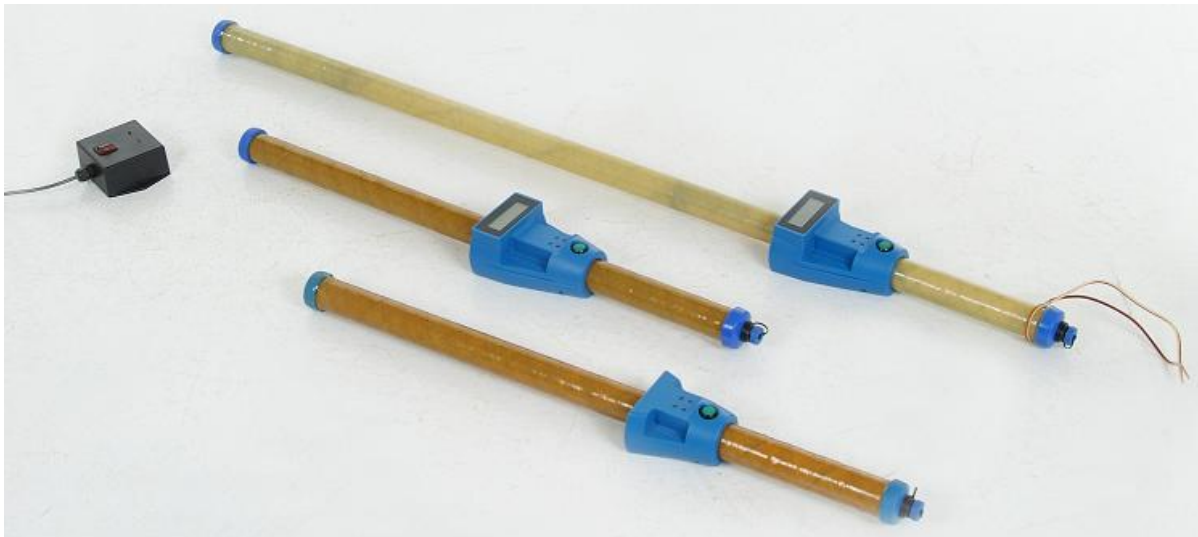


**Wireless
LCD-LightningROD Reader
ICR04-v2.4**

Operating Manual



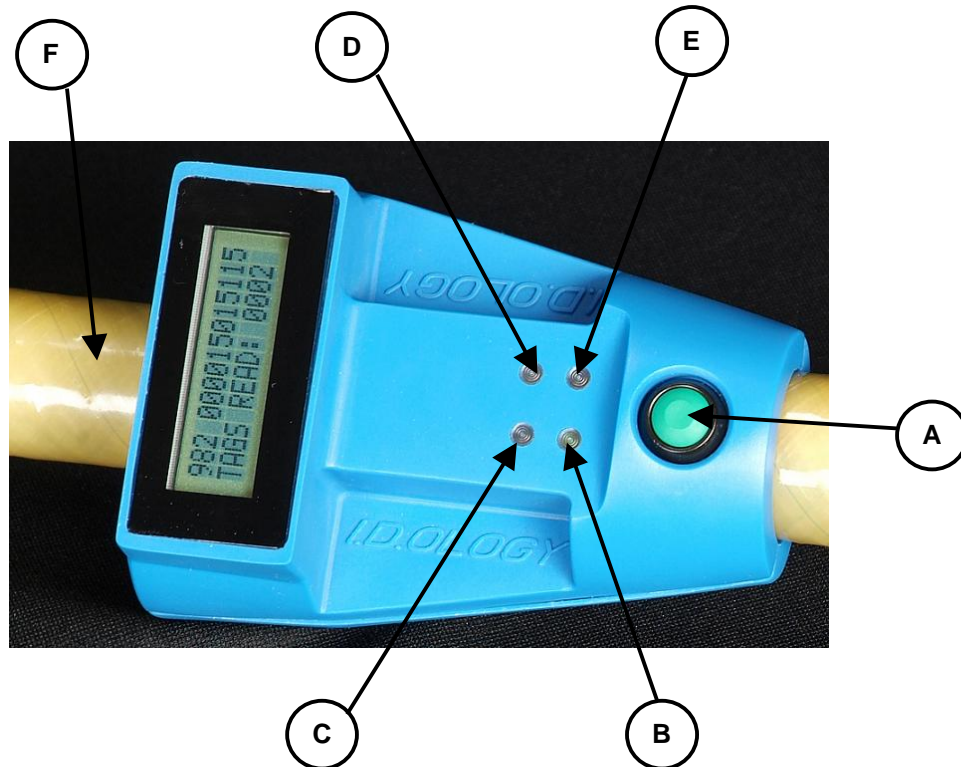
I·D·OLOGY
IDENTIFY WITH IT

1324 West Clairemont Avenue
Eau Claire, WI 54701
Phone: 715-834-9922

This wireless reader handles most functions in an intuitive manner in that the same button that turns the reader on also activates the antenna to read, store and transmit tag IDs.

The *LCD-LightningROD* is an ISO reader and therefore reads all RFID tags that are compliant with the animal ISO 11784 - 11785 protocol. The LCD screen displays the last transponder number read by the reader on the top line and the cumulative count of each unique tag number that has been read on the second line. With the Bluetooth Serial Port Protocol connected and using Hyper-terminal or other similar software, simply sending the letter "G" instructs the reader transmit its memory list. Sending the letter "M" will clear the reader's memory.

I.D.ology Wireless *LCD-LightningROD* Reader



A. Activation Button

Press this button to turn on the reader, to establish a Bluetooth™ link and to read transponders. Pressing and releasing this button will turn on the power and the "Power" indicator LED will light. The reader will also attempt to establish a wireless communication link with a host computer or PDA. Press this button 3 times rapidly to change modes and then press and hold it for 2 seconds to clear the memory of tags that have been read, counted and stored in memory.

The button must also be pressed and held whenever reading transponders

The Reader will turn off automatically after 3 minutes of inactivity

When the reader turns off its memory retains all tags that have been read

The count of tags in memory is displayed as soon as the reader is turned on again

To conserve battery charge, the RF transmitter of the *LightningROD* Reader is only active when this button is pressed.

B. Power Indicator

This green light will illuminate to indicate that the *Lightning*ROD is turned on. If this light is not lit, pressing and releasing the activation button will turn the unit on.

C. Read Indicator

This is a red light that will blink whenever the *Lightning*ROD reads a transponder. Other indications of having read a transponder include an audible tone and vibration of the handle.

D. Communication Link Indicator

A blue light will illuminate when a Bluetooth wireless communication link is active between the *Lightning*ROD Reader and a PDA or host computer.

E. Low Battery Indicator

This yellow light will illuminate to indicate that the *Lightning*ROD Reader batteries are low on power and need to be recharged.

NOTE: When the *Lightning*ROD Reader is turned off (the “Power” light is not lit), it is normal for this indicator to flash briefly when pressing and releasing the activation button. This indicates that the battery power circuit is functioning properly.

F. Battery Charging Indicator

This dual colored light located inside the translucent rod will be lit when the battery charger is attached to the reader. This light will be red when the unit is charging and will turn green in about 2 hours at the conclusion of the rapid charge sequence. The charger will continue in the trickle charge mode while it is plugged into a powered outlet.

Changes not expressly approved by **I.D.ology** could void the user's authority to operate this equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an output on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This product complies with FCC radiation exposure limits set forth for an uncontrolled environment.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference. And (2) this device must accept any interference received, including interference that may cause undesired operation.

Features

ISO RFID Reader	Tested with and reads all Animal ISO 11784-11785 compatible tags
Long Read Distance	10 to 16 inches with good quality tags in quiet environment
Large Memory	Depending on model, stores from 1000 to 4000 tags in memory
Positive Operator interface	Indicator lights to show when a tag is read and operational status
Vibrating Handle - Read Alert	Vibrator provides tactile and auditory read alert – special - for noisy environments
Back-lit Tag Display	Last tag read displayed on a back-lit LCD screen for sunlight and dark area use
Counts & Displays	Counts & displays the count of each unique tag that is read – no duplicate counts
Environmentally Rugged	300 psi fiberglass shell and cold room operation with rain or dust seal for IP65
Sleep Mode	Bluetooth and RFID reader both have sleep modes
Long battery life	Depending on environment 12 hours of operation reading over 25,000 tags
Ni Metal Hydride Batteries	Powerful and rechargeable power pack
DLL Available	Dynamic Link Libraries available to assist with PC software integration.

Specifications

RFID Reader Operating Freq.	134.2 kHz
RFID Tag Protocol	ISO 11784 & ISO 11785 Compliant tags both FDX-B and HDX
RFID RF Power	0.6 Watts
Physical Characteristics	Length 18”- 72” depending on options, 24” is standard Width 3.5” Height 2.25” Weight 32 oz for the 24” standard size unit
Environmental Characteristics	Operating Temperature -20° to 65° C (-4° to +149° F) Storage Temperature -20° to 65° C (-4° to +149° F) Relative Humidity 5% to 95% (non-condensing) Sealed for Rain & Dust Resistance for IP-65 compliance Drop Spec. Withstands 4’ drop onto concrete
Power	Battery Type Ni Metal Hydride 6.0v, 2000 mAh Battery Life 12 hours, environment dependant Recharging Time: 2 hours

Available Accessories

USB Bluetooth Adapter for PC/Laptop
Custom USB Bluetooth Adapter with “Smart Cable” Auto Link Feature
9-Pin RS232 Serial to Bluetooth Adapter
9-Pin RS232 Serial to Bluetooth Adapter with “Smart Cable” Auto Link Feature
Carrying Holster
Vehicle Charger
Transport Tracker Software for PPC

Regulatory Approvals

FFC Part 15 Class B SYAICR04
Industry Canada RSS-210 Certification 5678A-ICR04