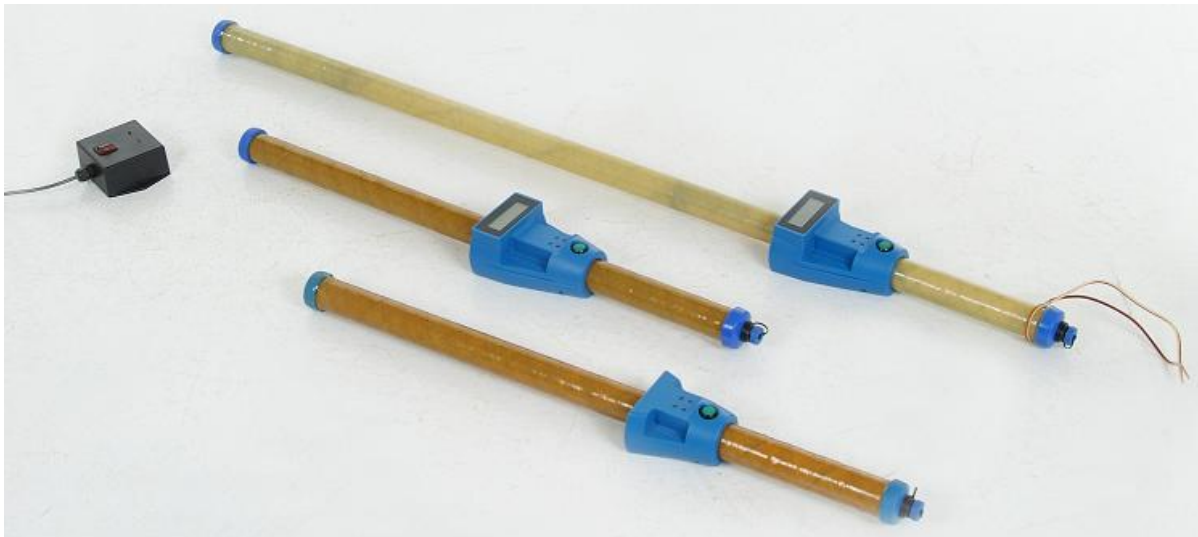


**Wireless
LCD-LightningROD Reader
ICR04-v2.4**

Operating Manual



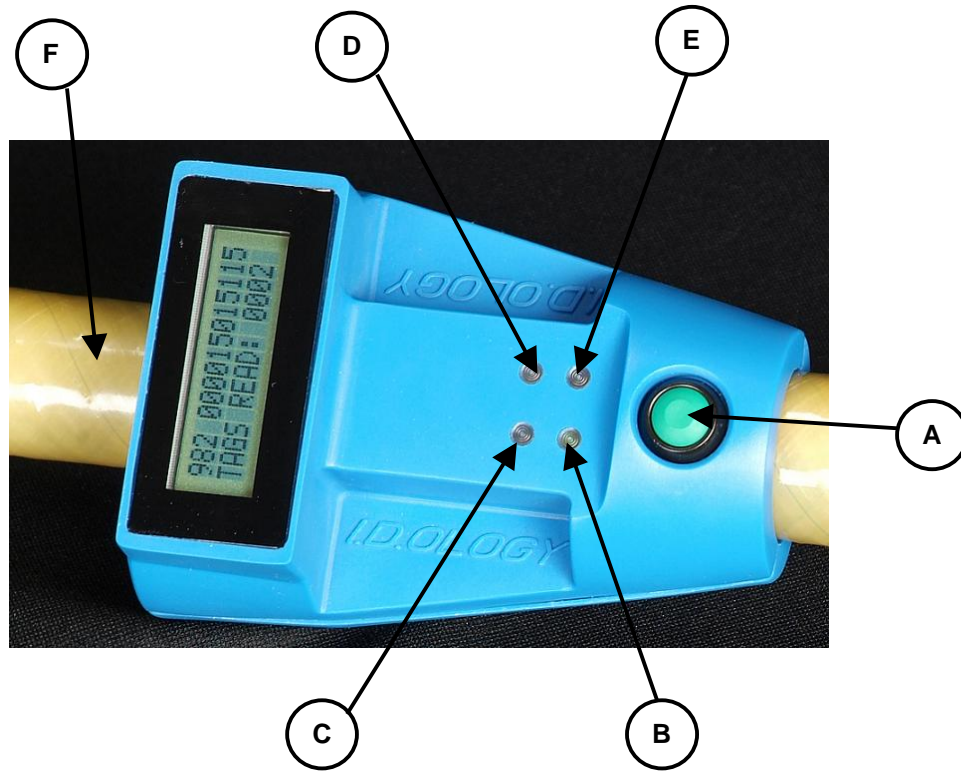
I·D·OLOGY
IDENTIFY WITH IT

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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.

Features

- **ISO RFID Reader** - Reads all Animal ISO 11784 and 11785 compatible tags.
- **Long Read Distance** - 12 to 16 inches dependant on RFID tag.
- **Indicator Lights** - show power, battery, communication and tag read status.
- **Vibrating Handle** - provides tactile indication of read for noisy environments.
- **Large, High Contrast, Back Lit Tag Display** – visible in sunlight or complete darkness.
- **Large Memory Capacity** - stores 1000 scanned IDs to internal nonvolatile memory list.
- **No Duplicates in Memory** – scanned IDs are only stored in memory once, regardless of how many times the tag is scanned.
- **Keeps Count** – Stores scanned IDs in memory as they are scanned and displays the total count on the LCD screen.
- **Rugged Construction** – spun fiberglass pipe shell; sealed from rain or dust.
- **Long battery life** – up to 12 hours of continuous scanning of up to 30,000 tags scanned on fully charged batteries.
- **Ni Metal Hydride Batteries** – Can be recharged thousands of times without losing operational charge time.
- **No Shock Wrist Strap** – Tethers reader to operator preventing accidental reader dropping. Strap will release from reader in the event the reader gets snagged and violently pulled.

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 with “Smart Cable” Auto Link Feature
- Carrying Holster
- Reader recharge cord for vehicle

Specifications

- **Operating Frequency** – 134KHz
- **RFID Tag Protocol** – ISO 11784 & ISO 11785 Compliant tags both FDX-B and HDX
- **Physical Characteristics**
 - Length = 24" standard or 36" optional
 - Width = 3.5"
 - Height = 2.25"
 - Weight = 32 oz for the 24" standard size unit
- **Environmental Characteristics**
 - Operating Temperature -17°C to 65° C (0° to +149° F)
 - Storage Temperature -20°C to 65° C (-4° to +149° F)
 - Rain & Dust Sealed
- **Power** – Battery – Ni Metal Hydride 6.0v
- **Maximum Recharging Time** (batteries completely discharged): 90 minutes fast charge to 90% of battery capacity; 90 minutes additional time to trickle charge remaining 10% battery capacity.

Regulatory Approvals

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

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.

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