StationSeeker™

Model 3049E - Owner's Manual

LF 125 kHz RFID

This document is made available to product owners and users for integration purposes. The manual is made public for FCC verification purposes only and the copyright is protected information is contained herein, therefore this document is protected by all applicable international intellectual property laws. The information contained in this document is constantly subject to revision (see Rev. number at top of each page). This device complies with part 15 of the FCC Rules. 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. Users must be advised that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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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 outlet on a circuit different from that to which the receiver is connected.***
- ***Consult the dealer or an experienced radio/TV technician for help.***

Quick Overview

The StationSeeker™ device operates as an RFID reader for in-ground LF RFID tags, transmitting data at 125kHz. The battery-operated handheld unit has an armrest, handle, interface board with LCD and speaker, etched pole shaft, and LF Reader board for RFID transmitting and tag receiving. The unit uses the LCD and speaker to convey information to the operator about the RFID tag. When a tag is found, an audible alert is sounded. As the tag gets closer, the audible tone increases in pitch and signal strength indication on the LCD also increases. As soon as the tag is fully read, its information is displayed on the LCD and a successful read sound is annunciated.

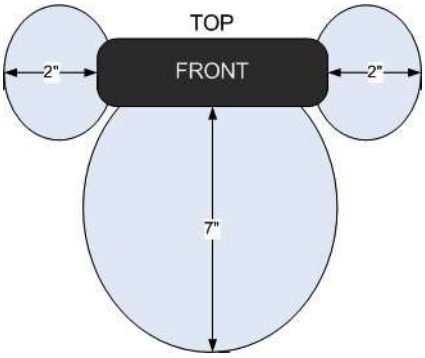
The unit is activated when the user's arm is seated in the armrest, the armrest activates a magnetic switch on the main controller board. When the operator's arm is removed, the LCD turns off and the unit goes back into low-power mode.

The foot of the station detector has an antenna that receives RFID tag information from the caps of the bait stations. The antenna scans an area 7" beyond the station detector. You should keep the station detector within 2" of the ground for optimal scanning.

Note: If your batteries are discharged and your unit does not power up, you can use standard Alkaline batteries purchased at any store carrying 'AA' batteries.

Operating Unit Recommendations

The following photos show the reception area of the antenna:

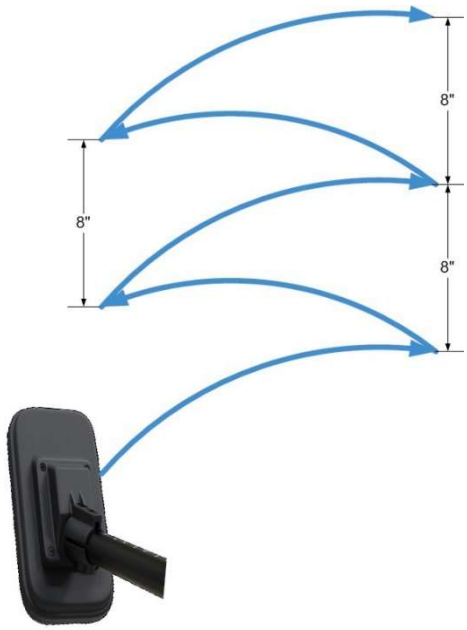


The antenna is intended to be held approximately 2" above the ground cover surface (soil, mulch, gravel) and is intended to detect tags that are buried up to 4" under the surface. The antenna should be kept parallel to ground surface to maximize the ability to detect the RFID tags that are buried parallel to the ground surface.

To set the antenna height, hold the unit as it would normally be used and adjust the pole extensions until the antenna face is flush against the ground, locking the pole extensions. Twist to unlock, increase or

decrease the length of a pole extension 2” per notch as desired, then re-lock by twisting in the opposite direction:

To maximize coverage and speed the antenna should be swept from side to side in an arc while moving forward or back approximately 8” in each sweep. This allows for full detection underneath the antenna. See illustration below:



System Startup Sequence

When the batteries are placed inside the StationSeeker™, and you press on the arm switch, the unit will do a self-test and display on the LCD. Once you remove your arm from the switch, the unit will power off.

Error During Startup

When you press the arm switch and the LF Reader does not communicate properly to the main controller, then the LCD will display:

Then the LCD will display:

If this problem persists, then contact RFID Customer service, contact info is in the footer and also on the last page of this document.

Unit Activation

The unit will power back on when the user presses the activation lever inside the arm rest. Upon doing so, the unit will do a self-test and the LCD will display:

If everything tested okay, the unit goes to high power, and the LCD will display:

The unit will now scan for RFID tags as long as the activation switch is pressed. Once an RFID tag is detected, the LCD will display:

Specifications

Physical:	Dimensions:	1092.2 x 228.6 x 107.95mm	43.0” x 9.0” 4.25”
	Weight:	1.4152 kilograms	3.0 pounds 12.0 ounces
Certifications:	FCC ID YVUM3049E	FCC Part 15 Class B	
Electrical:	Battery Specifications:	AA Alkaline, 1.5vDC, each cell	Output, 6.0vDC@2000mAh
		AA Li-ion, 1.5vDC, each cell	Output, 6.0vDC@2000mAh
Consumption:	Low Power: 18mA max.	Scanning: 180mA max.	Reading and Beeping: 200mA max.
		4-each AA-size, Batteries	4.5VDC to 24VDC
Battery Life:	AA Alkaline	10 hours, constant scanning tags	Non rechargeable
	AA Li-ion	14 hours, constant scanning tags	Rechargeable, 3-4 hours
Materials:	Housing, Base:	Substrate: Polycarbonate + ABS	Over Mold: 60 Shore A Santoprene
Environment:	Storage Temperature:	-10°C to 60°C	14°F to 140°F
	Operating Temperature:	0°C to 50°C	32°F to 122°F

Warranty

RFID, Inc. products are warranted against defects in materials and workmanship for one (1) year from date of shipment. RFID, Inc. shall, at its option, either repair or replace products that prove to be defective and are returned with freight prepaid to RFID, Inc.'s plant within the warranty period. The foregoing warranty shall not apply to defects resulting from abuse, misuse, accident, alteration, neglect or unauthorized repair or installation. RFID, Inc. shall have the right of final determination as to the existence and cause of the defect.

THE WARRANTY SET FORTH ABOVE IS EXCLUSIVE AND NO OTHER WARRANTY, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED. RFID, Inc. SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedies provided herein are the Buyer's sole and exclusive remedies. In no event shall RFID, Inc. be liable for direct, indirect, special, incidental, or consequential damages, (including loss of profits) whether based on contract, tort, or any other legal theory.

Part Numbers

Model Number	Part Number	Description
3049E	800-3049-00	StationSeeker™ - Handheld bait box LF Reader
	721-0022-00-KIT	Battery Kit - 4-each 1.5vDC Li-ion batteries + charger + USB cable
	721-0022-00-BSET	4 pack of spare batteries, Lithium AA 3000mWh, rechargeable
	800-0105-00-BASF	Model 1770-BASF ISO Card StationSeeker™ Test Tag
	994-3049-SQ-TOTE	Model 3049-SQ-TOTE StationSeeker™ storage bag

How to Contact Us

Customer Service: customerservice@rfidinc.com or 303-366-1234 x1008

StationSeeker™ Service Section

This area of the manual is set aside to assist you with know issues already detected and resolved.

Issue:

Dropping the StationSeeker™ with the batteries installed onto a surface can cause the unit to turn on and stay on.

Cause:

The shock wave from the StationSeeker™ falling creates a wave that will activate the on/off reed switch just like the wave created from the magnet inside the arm switch.

Resolution:

Remove a battery for about 1 minute, replace battery and unit should work as normal.