

# RadStar Alpha Series Radon Management Cloud

# Complete User Manual and Operating Instructions



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# System Overview

# <u>Overview</u>

The RadStar Alpha Series contains three models of continuous radon monitors. The Radon Management Cloud is the software platform that RadonAway has developed to support the RadStar Alpha Series. The software contains three applications – Website, Mobile and Desktop.

The Mobile and Desktop Applications interact with the continuous radon monitor hardware to start and stop tests as well as download data from monitors. The Mobile and Desktop applications are required to sync the data with the Website application.

The Website application receives all data synced/uploaded from the Mobile and Desktop Application. The Website application is the centralized database that stores all company, user and test information on a secure server that is backed up regularly. It is through the website that you do all of your Company management.



This document contains detailed instructions on all of the features of the RadStar Alpha Series continuous radon monitors as well as instructions for using all three applications that make up the Radon Management Cloud. These instructions are also available online and searchable at radstaralpha.com.



# Getting Started

#### Account Setup

Once you have made the wise decision to join the Radon Management Cloud, these are the steps required to get your account setup and start performing radon tests for your company. The following steps 1-4 are the one-time setup if you are a new RadStar Alpha Series or Radon Management Cloud customer.

#### Step 1: Account Setup

A Spruce customer service representative will create an account for your Company and create an Administrator account for your company's administrator.

#### Step 2: User Management

Your Company's administrator will login to the Radon Management Cloud at radstarcrm.com to create all users needed for your company.

#### Step 3: Report Management and Email Templates for Company

Your Company's administrator will log in to the Radon Management Cloud at radstarcrm.com and do the one-time initial setup of the company Report Management and Email Templates.

#### Step 4: Install Mobile and Desktop Applications as Needed

For **MOBILE**, search for "RadStar" in Apple AppStore or Android Google Play store. Install application named "Radon Management Cloud". The mobile app can be used with RadStar Alpha devices only.

For **DESKTOP**, you can install Desktop App from radstar.accustarlabs.com/downloads. The Desktop app can be used with RadStar Alpha devices, RadStar RS300, RS800 and Sun Nuclear 1027 continuous radon monitor.

# <u>Unpacking / Included in the Box</u>





RadStar Alpha with keys

USB-C 6' Cable & Wall Charger Kit



3' USB-C Cord



Product Guide

- RadStar Alpha The model RadStar Alpha continuous radon monitor that you ordered.
- **Keys** Each RadStar Alpha comes with 2 keys.
- USB-C 6' Cable & Wall Charger Kit This kit includes a fast-charge USB-C wall adapter and a 6 foot USB-C to USB-C cable. Using this kit will charge your RadStar Alpha within a few hours while using alternative charging methods could take much longer. We recommend always charging using this charger kit and keeping the RadStar Alpha fully charged at all times whenever possible.
- 3' USB-C to USB-A Cord This cord is supplied for use when connecting your RadStar Alpha to a Windows PC for data transfer.
- Product Guide Summary of product features and instructions
- Calibration Certificate Detailed certificate of calibration from our testing facility in Ward Hill, MA.



# RadStar Alpha Series Models

Model Information			
	∝ 311	α 515	α : ] ]
PARAMETER	P/N 28547	P/N 28548	P/N 28549
Sensitivity (cph)	10	16	28
Radon	$\checkmark$	$\checkmark$	$\checkmark$
Temperature		$\checkmark$	$\checkmark$
Humidity		$\checkmark$	$\checkmark$
Barometric Pressure		$\checkmark$	$\checkmark$
Report in pCi/L and Bq/m <sup>3</sup>	$\checkmark$	$\checkmark$	$\checkmark$
Radon Management Cloud		$\checkmark$	$\checkmark$
Rechargeable Battery	$\square$	$\checkmark$	$\checkmark$
Available in Rental Program			$\checkmark$
Internal Storage for 5 Tests			
Max. Storage: 5,200 Hourly Data Sets*			

\*There is a maximum of 2,300 hourly data sets for a single test. The device is also capable of storing a maximum of 5,200 data sets.

The intended use of the RadStar Alpha continuous radon monitors is to perform and report short term radon tests with 2-10 day durations.



# Alpha Series Hardware

# **Battery Information**

- Charge your battery at least until the battery LED is GREEN. Time to achieve this will vary but should not take more than 4-6 hours (if battery is completely drained).
- When fully charged, battery should last approximately 10 days.
- The device will automatically turn off if sitting idle (not connected and not testing) for 15 minutes with the key switch in the ON or LOCK position.
- For best results, keep device plugged in during testing.

# Key Switch

The key switch has 3 positions, ON, OFF and Lock (lock image)

**OFF** – device is off

**ON** – Device is on with hardware buttons enabled. In this mode, you have the ability to use the physical buttons on the RadStar or use the mobile app to control the device via Bluetooth

**LOCK** – The RadStar should be in the Lock position whenever a test in in process. The LOCK position disables the physical buttons on the RadStar. While in LOCK position, you can connect to the RadStar using the Mobile app and start/end tests.



• OFF – Device is off, hardware buttons are disabled, and Bluetooth will not work while key switch in OFF position.



**ON** – Device is on, hardware buttons can be used and Bluetooth will work while key switch in ON position.



 LOCK – In the lock position, the buttons on the RadStar are disabled. Insert key, turn to Lock position, and then REMOVE KEY. Bluetooth will work while key switch is in lock position.



# LED Indicators

RS	SOLID / FLASHING	SOLID	FLASHING	SOLID / FLASHING	FLASHING	SOLID	FLASHING
$\checkmark$	Ready for use		Test in Progress	Call for support	-	ł	
	Battery is fully charged	Battery is charging	<b>SLOW:</b> Battery at 50 – 74% <b>FAST:</b> Battery at 20 – 49%	Battery is critically low	-	-	~
Ü		,	-	-	In delay mode	-	Ċ.
*	-	-	ġ.	-	-	Connected	Broadcasting
	-	-	*A tamper event has occured	-	-	-	

\*Three (3) types of tamper events are tracked: motion/tilt, A/C power disconnected, critically low battery

# Tamper Events

The RadStar Alpha Series continuous radon monitors track three types of Tamper events.

**Tilt/Motion** – Indicator will appear on hourly reading when the RadStar Alpha device is moved during that hour while a test is in progress.

**Low Battery** - Indicator will appear on hourly reading if the internal battery reaches a critically low battery charge level during that hour.

**A/C Disconnect** - Indicator will appear on hourly reading if the RadStar Alpha is unplugged from a power source during that hour while a test is in progress.

# **QC** Counter

Each RadStar Alpha continuous radon monitor has a **QC Counter** built into it. This QC Counter will increment by 1 each time you start a radon test with that CRM. Once the counter reaches 9 or above, you will receive a reminder notification in both the mobile and desktop apps telling you that it is time for you to conduct a duplicate quality test for that continuous radon monitor. This is just a reminder for you and will not change the operation of the RadStar Alpha in any way. You can reset the QC Counter at any time in the **Device Settings** screen in either the mobile or desktop app. You can turn off the QC notifications at any time in the **App Settings** screen in either the mobile or desktop app.



# Auto-Delete Tests

If you start a test on a RadStar Alpha continuous radon monitor and then stop the test before the first hourly reading has been recorded (approximately 60 minutes after starting the test), the RadStar Alpha will automatically delete that test from the device internal memory. This measure was put in place to delete tests that were accidentally started and stopped and contain no data without requiring you to sync this data to the Radon Management Cloud.

# Battery Saver: Auto Shut-Off

The RadStar Alpha will automatically turn itself off if ALL of the following conditions are met continuously for fifteen minutes:

- 1. The key switch in the ON or LOCK position
- 2. No test is running on the RadStar Alpha
- 3. No Bluetooth connection is made to the RadStar Alpha
- 4. No USB connection is made to the RadStar Alpha

To revive the RadStar Alpha, simply turn the key switch to the OFF position, wait five seconds and then turn the key switch back to the ON or LOCK position.



# Instrument Specifications

Alpha Series RadStar Specifications	a310	a516	a830
Mode:	11.11.10.00	Continuous Radon Monitor	Card President
Principle of Operation:		Pulse Mode Ionization Chamber	
a dia lan ang dia si dia si	.17 cpm/pCi/L (minimum 40 alpha	.27 cpm/pCi/L (minimum 64 alpha	a .47 cpm/pCi/L (minimum 112 alph
Minimum Sensitivity:	counts per hour @ 4 pCi/L)	counts per hour @ 4 pCi/L)	counts per hour @ 4 pCi/L)
Units:	pico	oCuries per liter (pCi/L) or Becquere	(Bq)
Dynamic Range:	0.5 to 150 pCi/L	0.5 to 150 pCi/L	0.3 to 200 pCi/L
Linearity:	+/- 15% (48 hr. test)	+/- 10% (48 hr. test)	+/- 5% (48 hr. test)
Data Storage (non-volatile):			Sa. 10
Max. Number of Tests	5	5	5
Max. Number of Readings per Test	2300	2300	2300
Total Number of Readings	5200	5200	5200
Power:		30W USB-C Fast Charge Power Deliv	
ndicators:			
LED 1		Test Status	
LED 2		Battery Status	
LED 3		Delay Mode	
LED 4		Bluetooth Connectivity	
LED 5		Tamper Event	
Audible Beep		Standard	
Key-switch:	3 000	sition with Removable Key (OFF, ON	LOCK)
Push Buttons:	510.	and that her brane key for t, on	, 100019
Button 1		Start Test	
Button 2		End Test	
Button 3		Delay Mode	
Connectivity:		Bluetooth (BLE) and USB-C	
Environmental Sensors		bidetooti (bide) and obb e	
Temperature	N/A	Standard	Standard
Relative Humidity	N/A	Standard	Standard
Barometric Pressure	N/A N/A	Standard	Standard
Tamper Detection:	NYA	Standard	Standard
Tilt		Standard	
Motion		Standard	
A/C Disconnect		Standard	
	50 dog 51	to 90 deg F, Relative H 0-80% (Non-	(and online)
Operating Temperature Range: System Readiness Check:		Occurs at every start-up, start test, a	
system Reduiness Check.	Standaru	occurs ac every start-up, start test, i	and end test
Environment meets standard requirements for radon testing	14		
	N/A	Standard	Standard
Sufficient on-board memmory		Charlest	
		Standard	
Sufficient battery level		Standard	
HV power circuit is functional		Standard	
Ion Chamber has been detected		Standard	
Real-time-clock is functional		Standard	
Battery Technology	Rechargeable I	i-ion battery pack with integrated p	rotection cicuitry
Battery Life (Fully charged):		10 days (Active testing)	
*Battery Charge Time:		4-6 hours (When fully depleted)	
Auto-off Battery Saver:	Standard (Powers do	wn device after 15 minutes when n	ot connected or testing
size:			
Width:		8 inches	
Height:		8 inches	
Depth:		4.25 inches	
Weight:		3.75 lbs	
Color:	Green/Black	Red/Black	Blue/Black
Exterior Construction:	والاستانية والمراجعة والمراجع المستعدية والمراجع و	ted aluminum enlcosure and glass-f	AND TAXABLE IN A DRIVE AND A DRIVE
Mounting:		(2) 1/4-20 Standard Tripod Mount	
		tel el el es statistica triboa tribant	



# Hardware Tests

A "Hardware Test" is when you use the physical buttons on the RadStar to Start and End a test. Using the Hardware Test buttons, you can start a test with No Delay, 12-hour delay or 24-hour delay. The benefits of a Hardware Test are that you can start and end the test without having to use the mobile or desktop application. The negative of using the Hardware buttons is that you lose some of the functionality of the mobile and desktop applications including the **Custom Delay** and **Duration** features as well as the initial sync of data to the Radon Management Cloud. You also lose the ability to attach the test to Test Details including the test address. This opens the door for potential human error in attaching the wrong data block to the wrong test details.

We recommend that customers use the Mobile or Desktop application to Start their tests, but of course everyone has their own personal preferences and the Hardware buttons are available for those who choose to use them.

#### Starting a Hardware Test

- 1. Turn RadStar key to ON position
- 2. Delay Mode
  - a. Do not press if you do not want a delay
  - b. Press once for 12-hour delay. The RadStar will make 2 audible sounds and purple Delay Mode LED will flash slowly
  - c. Press a second time for 24-hour delay The RadStar will make 3 audible sounds and purple Delay Mode LED will flash quickly
- 3. Press Start Test button
  - a. RadStar will make audible sound and Status LED will turn to a flashing Orange light
  - b. Delay Mode LED will flash until Delay period ends
- 4. Turn RadStar key to Lock position (this will disable the Hardware buttons)
- 5. Remove key

#### Ending a Hardware Test

- 1. Insert key
- 2. Turn key to ON position
- 3. Press End Test button
- 4. Turn key to OFF position
- 5. Remove Key

#### Downloading Data for Hardware Test

- 1. You can download the data from a Hardware Test into either the Mobile or Desktop application
- 2. Connect to RadStar
- 3. Go to Completed Tests
- 4. Select the test you want to download. At this point you will be able to view the test data.
- 5. Select Test Details
- 6. Enter the required Test Details (minimal fields are required in order to sync the test to the Radon Management Cloud
- 7. Sync to Radon Management Cloud



# Using the Radon Management Cloud

# Website Application

The web-hosted Radon Management Cloud provides you with the ability to manage your company's testers, test details, and reporting features. Mobile and desktop applications can be used in the field to start, stop, and sync your radon test results to the Cloud.

The website application is the management portal of the Radon Management Cloud. This is where you will manage your company's information, users, reporting templates, email templates and tests. All tests performed using both the mobile and desktop applications will be synced to the website portal. The website portal, including all company and test information, is hosted by Spruce Environmental Services using AWS services and is backed up on a regular basis. The Radon Management Cloud website can be reached at radstarcrm.com.

# Mobile and Desktop Applications

The mobile and desktop applications are used to start and stop tests on your RadStar Alpha Series as well as download data from the Alpha series monitors and upload/sync to the Radon Management Cloud website application. Functionality of these applications includes:

- Start tests on your RadStar Alphas with custom delays, durations and automatic shut-offs.
- View incomplete test details while test is still running.
- End tests and download data for previewing prior to generating report.
- Delete old tests from your RadStar Alphas
- Update your profile information.
- Create, download and sync tests from RadStar RS300, RadStar RS800 and Sun Nuclear 1027 CRMs (Desktop Only)

#### **Mobile Application**

The mobile application is available for both Android and iOS and can be downloaded from the Google Play or Apple App Store by searching for "RadStar" and installing the application named "RadStar Alpha Series". The mobile application can ONLY be used with the RadStar Alpha Series devices. The following operating systems are supported (previous operating systems are not supported):

- iOS versions 10.\* or higher
- Android versions 6.\* or higher

#### **Desktop Application**

The desktop application is compatible with Windows 10 only. The desktop application can be used with all 3 RadStar Alpha Series models as well as the RadStar RS300, RadStar RS800 and Sun Nuclear 1027. All tests created and downloaded using the desktop application will sync to the Radon Management Cloud website application.



# **QC** Tests

The Radon Management Cloud has some built-in feature to assist you with running duplicate QC tests for your continuous radon monitors.

You can turn on the QC feature for any test managed in the Radon Management Cloud.

- In the mobile application, there is a QC radio button at the top of the Edit Test Details screen. Turning this radio button on will display the duplicate test fields for you to fill in.
- In the Desktop application, there is a QC tab when entering Test Details. On the QC tab, turn the radio button on for QC tests and then enter the information for the duplicate test device you are using for that test.
- On the website, you can also add/modify the duplicate QC test data on the Test Details page.

Once a test has been marked as a QC Test, the system will use that test to generate a QC Report.

#### QC Report

One of the report templates available to you in the Radon Management Cloud is the QC Report template. You can run this report for any device in the system.

To run the QC report:

- 1. Select a radon test that was performed using the CRM for which you want to generate the report.
- 2. Select QC from the Report Layout dropdown
- 3. Click Export PDF or Download Report (depending on which app you are using)
- 4. The system will then atomically search the database for all QC reports that you performed with that CRM and generate the QC report. These QC tests are identified using the Serial Number of the CRM.



# Website – Management Tools

# My Company Info

To access My Company Info, navigate to **Settings \ My Company Info** after logging into the Radon Management Cloud. This page displays your company information including company name, address and logo. The information entered on this screen will be used on your company's official radon reports and will be automatically applied to users created within the Company. All users within your company have the ability to view this information, however, only Company Admins have access to modify this information.

From the My Company Info page, you can view a list of your company's Company Admins and link to Manage Users or Add Company User to add a new user to your Company.

#### **User Management**

To access the user management section of the Radon Management Cloud, navigate to **Settings \ User Management** after logging into the Radon Management Cloud. This will bring you to the Manage Users page where all the users of your company will be listed in a table which displays their email address, user type and status. There is an Actions menu to the right of each user listed in the table with the actions **Edit** or **Deactivate/Activate**. Select Edit to go to the Edit User screen for that user where you can modify the user's profile information. Select Deactivate/Activate to turn access for that user's login on and off. Users of the system are never deleted, only deactivated and can be re-activated at any time.

#### User Types

There are two user types available for your company with the following permissions. There is no limit to the number of users you can create within your company.

Company Admin

- Manage Report Templates for Company
- Manage Email Templates for Company
- Manage Users for Company
- Start/Stop Tests
- View all Tests for Company

#### Company Tester

- Start/Stop Tests
- View all Tests for Company

#### Creating Users

From the Manage Users screen, select Add User to bring up the Add User form. You will notice that the address will automatically populate with the address from the Company profile. At this time, you can modify this address for that specific user if needed. Enter the users First Name, Last Name, Certifications and License Numbers. On the right side of the screen, you will see the User Login Information. Enter the user's email address (which will act as their username for login to the Radon Management Cloud), select the User Type from the dropdown and create a password for that user. Upon saving, an email containing the username and password you created will be generated and sent to the new user. The user has access to Radon Management Cloud immediately after saving.



# My Profile

Every user has access to the My Profile page, which can be found in the main navigation of the Radon Management Cloud. Updates made to the My Profile page will sync to the Mobile and Desktop applications for your user. On the My Profile page, you can,

- Update your contact information, license numbers, etc.
- Update your Time Zone
- Upload an image of your signature to be used on the official radon reports
- Change your user password
- Set your Units of Measurement preferences (Imperial vs. Metric)

#### Units of Measurement

You can change your user's Units of Measure at any time. Switching between Imperial or Metric on your My Profile page will switch all values in all views in the software and reports. So, you can generate a report in pCi/L and then switch to Metric and generate the same report in equivalent Bq/m<sup>3</sup>. The following table displays the Units of Measure for the environmental variables recorded for the RadStar Alpha Series continuous radon monitors.

	Imperial	Metric
Radon	pCi/L	Bq/m <sup>3</sup>
Temperature	F	C
Humidity	%	%
Barometric Pressure	kPa	Mbar



# **Report Management**

To access Report Management, navigate to **Settings \ Report Management** after logging into the Radon Management Cloud. Report Management is only available to Company Admins and is where you will customize your radon reporting templates for your Company.

#### **Default Email/Report Options**

The Default Report Layout dropdown contains a list of the report templates available for your company to use. Select the report template that you would like to bed the Default template for your Company. When any user in your Company generates an official radon report, the template you choose here will show as the default template. The users can change to a different template by selecting the alternative template at the time of radon report generation.

#### Radon Report and Email Content

The content of your official radon reports and emails to customers can be handled in two ways:

- 1. **Standard Template** if you choose this option, all reports will be sent using the same content in the radon report and email regardless of the result of the radon test.
- 2. Template Based on Result if you choose this option, you have the ability to customize both the content of the official radon report and the email automatically based on the radon result for that test. With this option, the system identifies the radon result for each test and compares it to the Result Ranges that you have set for your company. The content sent to customers in the email and official radon report will match the appropriate Result Range of High, Borderline or Low.



#### Change Result Ranges

You can see the currently set result ranges in the table underneath the Standard Template and Template Based on Result radio buttons. You can modify the Result Ranges by selecting the **Change Result Ranges** button. This will bring up a dialog that allows you to change the Result Ranges by dragging and dropping the circles on the ends of the ranges. After setting the desired ranges, click Save Changes. This will set the Result Ranges for your Company.

Default Report Layo	out							
Cover And Report								
Standard Templat	te		۲	Templa	ate Base	d on Res	ult	
High			>	= <mark>4.0 p</mark> C	i/L			
Borderline			2.	0 - < 4.0	pCi/L			
Low			<	2.0 pCi/	L		Change	Result Ran
Drag ci	rcles below to	o change ar o O 3 4	id set your	result r	anges.		Change	Result Ran



#### **Editing Radon Report Templates**

Each Company has the ability to customize the content of four report template layouts which can be used for all users within your Company. The four layouts include:

- 1. Detailed Report with Cover Letter
- 2. Detailed Report without Cover Letter
- 3. Summary Report / Simple Report
- 4. Quality Control Report

For each layout, you have the ability to set content for each of the four possible results.

If you have selected to use the Standard Template option for your Company, you can set the content by clicking on the Edit button to the right of Standard Template. This content will be used for all reports for the Company. If you have selected to use Template Based on Results use the Edit button to the right of each of the respective Result Ranges (High, Moderate, Low) to set the content for each Result.

Detailed Report with Cover Letter The report begins with a cover letter and provides all test	details including graph and hourly interval readings.	
Standard Template	Last updated 03/29/2019 10:07 AM EST by Webinar Demonstrations	C Edit
High Results	Last updated 03/29/2019 10:08 AM EST by Webinar Demonstrations	🕼 Edit
Moderate Results	Last updated 03/29/2019 10:08 AM EST by Webinar Demonstrations	🕼 Edit
Low Results	Last updated 03/29/2019 11:27 AM EST by Webinar Demonstrations	🕼 Edit

After selected the Edit button you have the options to customize the editable content areas of the selected report template. Typing in text in the Cover Letter and/or End of Report text areas will add that content to the official radon report. You also have the option of uploading a PDF attachment. If you upload a PDF document in this area, the PDF uploaded will append to the end of the official radon report in the same PDF file. Make sure to click **Save changes** after you have entered and/or uploaded your customized content. The best way to master these customization options is to experiment with it while doing the initial setup of your Company.

Dashboard > Report Management > Edit Report	
Edit Detailed Report with Cover Letter - High Template	
The settings on this page will be included each time the report template is generated	
Cover Letter This text will display on the front page of this report	
THIS IS THE HIGH RESULT TEMPLATE THAT WILL AUTOMATICALLY SHOW BASED ON RADON RESULT.	
Lorem Ipsum dolor sit amet, consectetur adipiscing elit, sed do elusmod tempor inclididunt ut labore et dolore magna Duis aute inure dolor in repretenderit in voluptate velit esse cilium dolore eu fugiat nulla pariatur. Excepteur sint occa	
Lorem Igsun dolor sit amet, consectetur adipiscing elit; sed do elutimod tempor incididunt ut tabore et dolore magna Duis aute irure dolor in reprehendent in voluptate veilt esse cilium dolore eu fugiat nuita parlatur. Excepteur sint occa	
End Of Report The text will display on the last page of this report	~
Attachment Attachment Attachment of while expended to the report file. Limit 1 file (PDF only) - Max file size 5 M8.	
Drog file here or click to upload	No por Attached



# **Chart Reference Line**

The Chart Reference Line feature allows you to put a reference line on the charts generated for the official radon reports. You can set one reference line on the chart by choosing from the following options: **EPA Action Level** (4.0 pCi/L, 148.0 Bq/m<sup>3</sup>), **World Health Organization (WHO) Action Level** (2.7 pCi/L, 99.9 Bq/m<sup>3</sup>), **Custom Reference Line** or **None**. Selecting Custom Reference Line will allow you to set the Line Label and Line Value in the fields provided. Setting a Chart Reference Line will apply to all Charts and radon reports generated for your Company.

Chart Reference Line		
EPA Action Level (4.0 pCi/L, 148.0 Bq/m <sup>3</sup> )	Custom Line Label	
○ WHO Action Level (2.7 pCi/L, 99.9 Bq/m³)		
Custom Reference Line	Custom Line Value	
None	0	



# **Email Templates**

To access Email Templates, navigate to **Settings \ Email Templates** after logging into the Radon Management Cloud. Email Templates is only available to Company Admins and is where you customize the content of the emails that contain the official radon reports for your Company. The official radon report is a PDF attachment of this email. The Email Templates interface allows you to customize email content for four Report Types: Standard, High, Moderate, Low. If you selected the **Template Based on Result** option in Report Management, the High, Moderate and Low email content will follow the same logic as the reports and the system identifies the radon result for each test and compares it to the Result Ranges that you have set for your company.

You can specify the following for each Report Type (Standard, High, Moderate, Low). First select the Report Type you want to modify from the dropdown menu and then update the following fields as needed.

- Reply Address All emailed official radon reports will be sent from the "Radon Management Cloud". If the recipient of the official radon report email replies to the email, the reply will be sent to the email address you specify in this Reply Address.
- **Subject** Specify the email Subject line for each Report Type. You can use Keywords from the Keyword List in the Subject line of the email.
- **Body Content** Specify the email Body Content for each Report Type. You can use Keywords from the Keyword List in the body content of the email.
- **Attachment** The attachments in Email Management will be attached to the email <u>in addition to</u> the Official Radon Report. You can use this feature to provide marketing or educational literature for your customers. You to attach up to 3 attachments per template. Each file must be 5 MB or smaller.

#### Keyword List

The Keyword list is a list of variables that you can insert into either the Subject Line or Body Content of your email templates. Simply choose which Keyword phrase (Ex: {Company Name}) and copy and paste the Keyword phrase into the Subject or Body Content field where you want that data to display. The system will automatically pull the appropriate information from the Test Details for each test.

Dashboard + Email Templates			Cancel Save changes
Email Templates			
Personal of the second constraints			
leport Type			
Standard	*		
leply Address		Keyword List	
Customer replies to report emails will be directed to this address.		You can use the keywords teelow in	both body and subject. Sample values
emai@email.com		will be replaced with the real test	rta.
iubject		Keyword	Sample Value
Your Radon Test Result Is in		(Company Name)	Radon Management Cloud, Inc.
lody Content		(Company Address)	CEDUC HIC
		ICompany Address2	
Dear (Customer Name). Radion Concentration Average:: (AvgResult)(UOM)		(Company City)	
Lease of the second of the second second second second		(Company State)	
Your official report is attached to this email.		(Company Zip)	
The U.S EPA recommended radion action guideline is 4.0 pCi/L. The EPA	summents that you consider	(Company County)	
taking action to reduce the radon when it is between 2.0 and 4.0 pC/L.	Radon levels can usually be	(Company Country)	USA
reduced by having a radon reduction (mitigation) system installed in yo	ur home or business by a qualified	(Company Website)	
radon mitigation professional. Radon levels in a building can change, so every 2 years - or sooner if you renovate - even if you mitigate.	we recommend that you test	* (Company Logo)	
creditions of here a loss of here and the second		(JOM)	DOM.
Attachment		Charles and Charle	
ites will be attached to the enail in addition to the original report. Available file extre	rejons: PDF, DOC, DOCK, PRJ, GP, FNG, TXT, Max file size: 5 MB	(Signature Image)	Joe Vester
		(Tester Filame)	John
		(Tester LName)	Doe
6	[3	(Tester Email)	john.doe@spruce.com
Drop file here or click to upload	No files attached	(Tester Phone)	754-3010
or click to upload		(Tester City)	Boston
		(Tester State)	MA
		(Tester Zip)	02101
		(Tester County)	Suttolk
		(Tester Country)	United States
		(Customer Name)	Mary Williams
		(AvgResuit)	3.5
		[Test Address]	145 Radona Way
		(Test Address2)	Unit 201
		(Test City)	Boston
		(Test Country)	United States
		(Test County)	Suttolk
		(Test Zip)	02101
		(Test State)	MA



# Manage Tests

Every user has access to the Manage Tests page, which can be found in the main navigation of the Radon Management Cloud. The Manage Tests screen displays all the tests performed by your company in the table on this screen. NOTE: All users have access to view all tests from all users of the same Company.

You can use the search tools above the table to filter the tests in the table by use of the keyword search for Customer name, address, email, city, state, zip, country, county, tester name or test id. You can also use the Device Serial Number text box to limit the table results to tests performed only by a specific continuous radon monitor's serial number. Start date and End date fields allow you to filter the table by date range and the Status radio button is available for limiting the table by test status. Apply the search criteria to the table by selecting the red **Submit** button.

Once you have applied the filters you want to the table, you can then export the filtered results to a CSV file by clicking on the blue **Bulk report** button.

In the table, there is an **Actions** menu in the right-most column. Clicking on Actions will provide three options: View, Edit and Report.

- View open that test in View Test mode
- Edit open that test in Edit Test mode
- **Report** selecting this option will generate a PDF of the official radon test using your Company's Default Report Layout

	Manage Tests My Profile							Help/Support	🌣 Settings <del>-</del>
Manage Tests Manage Tests	Device Serial Number		untry. County. Tester Name. Test Id						
1 — 1 out of 1 results	Start date	End date	Status:  Complete  Incomplete	QC	Bulk repo	rt	Submit		
Customer Name	Start Date	Address	Radon Average Result	Customer Email	Status	QC Tester Name	Device SN		
John Doe	07/16/2019 12:07 PM EST	123 Fake Street	0.8 pCi/L	email@email.com	Complete	Radon Teste	r 8001	Actions	-
			Copyright 2018 - 2019 Spruce Environ	mental Technologies, Inc. v.1.0.7					

## **View Test**

The View Test screen allows you to view all of the test details and test results (if available) for a given test. From the View Test screen, you can also export test details, generate official radon reports and email official radon reports.

NOTE: The test status MUST be Complete in order to perform any of the following tasks in the **Exports** section:

- Select Export chart to download a PNG image file of the test chart
- Select Export CSV to download a CSV file with all the test details and results
- Select Export TXT to download a TXT file with all the test details and results
- Select **Export PDF** to download a PDF of the official radon report. You can change which Report Layout you are using to generate this PDF by changing the selected value in the **Report Layout** dropdown prior to selecting the **Export PDF** button.
- **Email Report** By default, the customer email address will be populated in the **Email to** field. You can add as many email addresses as you'd like to the Email To or Email CC fields. Select the Report Layout you want to have the PDF use and then select the **Email Report** button. This will send a copy of the email with official radon report attachment to all specified recipients.

	Profile	Help/Support 🗢 Settings
Manage Tests » View Test View Test		Cancel Edit Test
Test ID 8001-1539628233	Test status Complete	Notes
Model α830	Serial 8001	There are no notes
Tester Name Radon Tester	Company Name Radon Management Cloud, Inc.	Exports Report Layout
Start Date/Time 07/16/2019 12:07 PM EST	End Date/Time 07/16/2019 12:19 PM EST	Cover And Report   Cover And Report CSV  Export CSV  Export TXT  C Export PDF
Delay (hours) No-delay	Test Duration (hours)	Email To
Contact Name John Doe	Contact Phone -	× email@email.com × Email.CC
Contact Email email@email.com	Country -	Enter up to 5 emails
Address 1 123 Fake Street	City -	
Address 2 -	State -	Attachment Photos
County	Postal Code	



## **Edit Test**

The Edit Test screen allows you to edit all of the test details for a given test including the contact name, address, QC Test info (if applicable), notes and attachment photos. Any changes made to the Edit Test screen in the website application will automatically sync back to the mobile and desktop applications when the mobile or desktop apps are connected to the RadStar Alpha and applicable test details. Make sure to **Save changes** when done updating the test details.

RADSTARE Dashboard Manage Tests My Profile		Help/Support 🗢 Settings
Manage Tests » Edit Test Edit Test		Cancel Save changes View Test
Test ID 8001-1539828233 Model 0830 Tester Name Radon Tester Start Date/Time	Test status Complete Serial 8001 Company Name Radon Management Cloud. Inc. End Date/Time	OC Test
07/16/2019 12:07 PM EST Delay (hours)	07/16/2019 12:19 PM EST Test Duration (hours)	Attachment Photos
No-delay Contact Name * John Doe Contact Email * email@email.com	11 Contact Phone Country Choose_	Drop file here or click to upload
Address 1 *  123 Fake Street  Address 2	City State Description	50 50 No image No image available available



# **Mobile Application Instructions**

# Installation

The mobile application is available for both Android and iOS and can be downloaded from the Google Play or Apple App Store by searching for "**RadStar**" and installing the application named "**RadStar Alpha Series**". The mobile application can ONLY be used with the RadStar Alpha Series devices. The following operating systems are supported (previous operating systems are not supported):

iOS versions 10.\* or higher

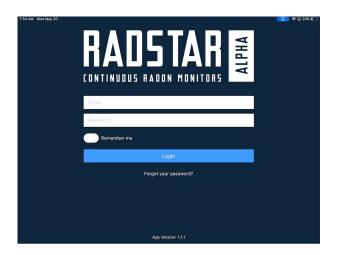
Android versions 6.\* or higher



# Login and Main Menu

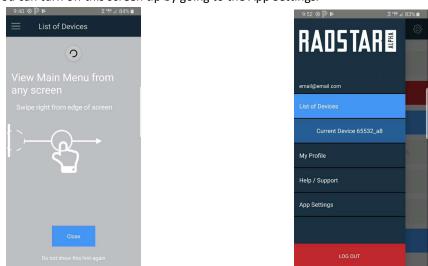
After installation of the mobile app, you can login using the username (email address) and password that was created for your account in the Radon Management Cloud.

NOTE: You must have an Internet connection to login to the Radon Management Cloud. If you select "Remember me" prior to logging in, you can then use the mobile application without an Internet connection. However, you will eventually need an Internet connection to sync your data to the Radon Management Cloud in order to generate official radon reports.





After you successfully login to the app, you will see a screen tip that shows you how to access the Main Menu. You can access the Main Menu from any screen by dragging your finger from the far left of the screen to the right. NOTE: You can turn off this screen tip by going to the App Settings.



The Main Menu contains the following links:

**List of Devices** – This link will bring you to the List Device screen where the app is searching for RadStar Alpha devices via Bluetooth.

**Current Device** – This menu item will only show if you are connected to a RadStar Alpha. Selecting this link will bring you to the Current Device screen.

**My Profile** – This menu item brings you to the My Profile screen which is synced with the Radon Management Cloud. You can modify your profile information on this screen. Upon saving, any changes made will be updated to the Radon Management Cloud.

Help/Support – This page provides links to the support site and contact information for RadonAway support.

**App Settings** – The App Settings screen allows you to turn ether the **QC Features** or **Hint Main Menu** features on and off for that mobile application installation.

$\equiv$	App Settings	
QC Fea	itures	•
Hint M	ain Menu	•
		l

Log Out – Logging out of the app will close all current connections and bring you back to the login screen.



## Connect to RadStar Alpha

After successful login, you will be sent to the List of Devices screen. This screen will automatically search for RadStars via Bluetooth and display all RadStars that are broadcasting within connection range.

NOTE: The format of the broadcast ID is XXXXX\_aY, where XXXXX = the serial number of the RadStar, and Y = the model (3,5,8)

1. Select the RadStar to which you want to connect.



2. This will bring you to the Current Device screen. Click the Connect button on the Current Device screen

8:05 AM Mon May 20 <b>〈</b> List of Devices	51010_a5	ବ 🛛 19% 💽
	CONNECT	
	CREATE TEST	
	REFRESH STATE	
	DOWNLOAD INCOMPLETE DATA	
	END TEST	
	EDIT TEST DETAILS	
	COMPLETED TESTS	

After successful connection to a RadStar Alpha, the rest of the buttons on the Current Device screen will activate. The action buttons on the Current Device screen include:

**Create Test** – Active if a test is not currently running on device. This button brings you to the screen to create a new test.



**Refresh State** – Use this button at any time to refresh the connection to the RadStar Alpha and retrieve updated information such as recent radon readings or tamper events.

**Download Incomplete Data** – If a test is currently running, this button will bring you to a screen that downloads the running test's details without stopping the test.

**End Test** – This button will end the test that is currently running and bring you to a screen that has downloaded all of the data for the test. NOTE: Once a test is ended, it cannot be restarted.

Edit Test Details – This button brings you to the Edit Test details screen.

**Completed Tests** – This button brings you to the screen where you can view all the completed tests that are currently stored on the RadStar Alpha.

#### Create Test using Mobile App

If there is no test currently running At this point, you can create a test if there is not already a test running on the RadStar

- 1. Click on **Create Test**
- 2. It is not required to set a Delay or Reported Hours, however, if you choose to do so:
  - a. **Delay** this dropdown menu contains the options of No Delay, 12-Hour Delay, 24-Hour Delay and Custom Delay. If you choose Custom Delay, a text box appears that allows you to enter a number which is the number of hours you want to set for the delay before the official radon test begins.
  - b. Report Hours if you leave this field blank, the test will run until you manually stop it via the Mobile App, Desktop App or Hardware button. If you enter a number in this screen, that number represents the number of hourly readings the test will run before the RadStar Alpha automatically stops the test. (Example: enter 48 in this field and the RadStar Alpha will automatically end the test after 48 hourly readings are recorded.)
- 3. You must enter at least the required information fields highlighted in red, which include Contact Name, Contact Email, and Address 1. After completing this form, scroll to the bottom and select **Start Test**.

8-10 AM Mon May 20		🗢 😡 18% 💽
	Create Test	
	QC TEST	
Delay		
No Delay		•
Report Hours		
Leave black for no time limit Contact Name*		
This is required field		
Contact Phone		
Contact Email*		
This is required field		
Country		
United States		-
Address 1		
DETAILS	NOTES	PHOTOS

## View While Test is Running

If there is a test already running on the RadStar, the Current Device screen will show you the number of recordings taken so far in the currently running test as well as any warning indicators. The **Refresh State** button is active. This button will refresh the connection with the RadStar Alpha and update the information being reported to the mobile app such as the number of readings in the currently running test and any tamper events that have occurred.



#### RadstarAlpha.com



# Download Incomplete Data

This feature allows you to download the data of an on-going test without ending the test in progress. When you select Download Incomplete Data, you will receive a message informing you that viewing the data will NOT stop the ongoing test and that this Incomplete Data cannot be used for a real estate transaction as you have not officially ended the test. Selecting OK to this message will bring you to the Data Download screen, which will show you all the hourly data for the test.



# End Test

If you attempt to End a Test that has less than 48 hours of data, the system will alert you that you have less than 48 hours of test data. You can Confirm and end the test early or you can Cancel and the test will resume. Once you End a Test, you CANNOT restart it to append more data points so make sure you have completed the test before you Confirm.

- 1. Select End Test on Current Device screen
- 2. After you Confirm ending the test, the software will send you to the **Data Download** screen.
- On the Data Download screen, you will see a chart and a table containing the test results. There are 2 tabs – Download Data and Test Details. On the Test Details tab, you can update or complete filling in the Test Details.



4. Scroll to bottom of data table and select **Sync Test**. This will bring you to the Report page

#### **Report Screen**

On the report page, select **View Report** to open the report on the mobile device as a PDF (Internet or Cellular connection required). You also have the option to change the Report Template to generate the official radon report in whichever PDF report template you choose. If you are ready to email the report, you can select **Email Report** to have report sent to an email address(es) entered as a PDF attachment. The customer's email address will be populated in the Email To field by default.

9:19 AM Mon May 20		
Test Results	Report	
Report Template		
Cover And Report		-
Email To		
Jdoe@email.com		
Email CC		
View Report		Email Report

#### Edit Test Details

If you are connected to a RadStar Alpha while a test is in progress, you can select the Edit Test Details button and edit the test details for this test. Saving those test details will automatically sync changes to the Radon Management Cloud.

## Completed Tests

If you are connected to a RadStar Alpha Series device that has completed tests stored on its hard drive, you can use the Completed Tests feature to view tests that are on the device. Each RadStar Alpha Series will store up to 5 tests on its local hard drive. If you already have 5 tests in the local storage, the mobile app will prompt you to delete an old test before you can start a new test. NOTE: You can only delete tests that have been successfully synced to the Radon Management Cloud.



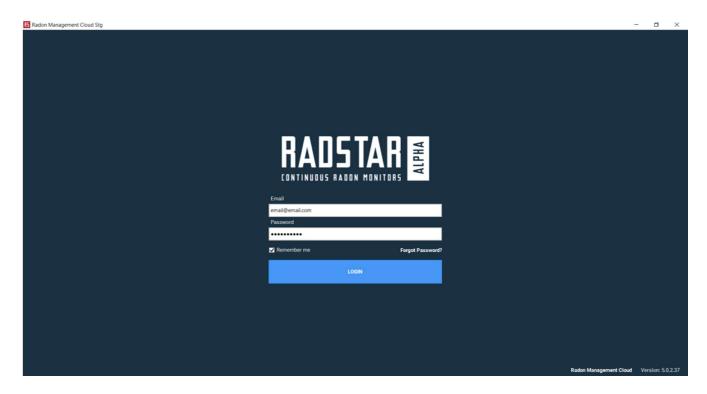
# Desktop Application Instructions – Alpha Series

## Installation

The Desktop application of the Radon Management Cloud can only be used on personal computers running a **Windows 10** operating system. To install the Desktop application, download and run the installation file from <u>http://radstar.accustarlabs.com/downloads</u>. Simply download and open the .EXE file and the software will install.

## Login and Main Menu

- 1. After installation of the mobile app, you can login using the username (email address) and password that was created for your account in the Radon Management Cloud.
  - a. NOTE: You must have an Internet connection to login to the Radon Management Cloud. If you select "Remember me" prior to logging in, you can then use the mobile application without an Internet connection. However, you will eventually need an Internet connection to sync your data to the Radon Management Cloud in order to generate official radon reports.



## Main Navigation – Left Side of Application

- List of Devices
- View Device Clicking on View Device will bring you to the main screen where you can select major functions available for this device. The options available on this screen differ based on which model you are using and the current status of the test.
- Help / Support This screen contains contact information for customer services and links to support website
- App Settings From this screen you are able to turn the QC counter and reminders on/off
- **EXIT** This link closes the Desktop application





# User Dropdown Menu– Top-Right of Application

- Email Address The current user's email address will be displayed in dropdown
- **My Profile** You can view and edit the My Profile information in the Desktop application. The updated data will sync with the Radon Management Cloud automatically after you select **Save Profile.**
- Log out This will log out the current user and return you to the login screen.

# List of Devices

After successful login, you will be sent to the **List of Devices Screen.** On this screen, you will see three static device options listed to the right for **SunNuclear SN1027**, **RadStar RS300** and **RadStar RS800**. Use these three links to create and manage tests using legacy devices (*Refer to Legacy device section of these instructions*).

Beneath these three static device links, you will see the RadStar Alpha listed. A RadStar Alpha must be connected to your computer using a USB cable and the RadStar Alpha must be turned ON for it to show on this List of Devices page. Once the RaStar Alpha is listed, you can click on the device name to get to the **Current Device** screen.

Radon Management Cloud Stg			×
RADSTAR	List of Devices	email	<sup>II.com</sup> ▼
List Of Devices	SunNuclear SN1027		
Help / Support	dStar RS300		
App Settings	0-10		
EXIT	RadStar RS800		
	RadStar COM11		

# Connect to RadStar Alpha

Once on the **Current Device** screen, click on **CONNECT**.

S Radon Management Cloud Stg			- 🗆 ×
RADSTAR	RadStar COM11 Radstar coM11		A enail@enail.com ▼
Current Device: COM11		CONNECT	
Help / Support		CREATE TEST	
App Settings		DOWNLOAD INCOMPLETE DATA	
EXIT		END TEST	
		EDIT TEST DETAILS	
		COMPLETED TESTS	
		Back to device view	

After successful connection to a RadStar Alpha, the rest of the buttons on the Current Device screen will activate. The action buttons on the Current Device screen include:

**Create Test** – Active if a test is not currently running on device. This button brings you to the screen to create a new test.

**Download Incomplete Data** – If a test is currently running, this button will bring you to a screen that downloads the running test's details without stopping the test.

**End Test** – This button will end the test that is currently running and bring you to a screen that has downloaded all of the data for the test. NOTE: Once a test is ended, it cannot be restarted.

Edit Test Details – This button brings you to the Edit Test details screen.

**Completed Tests** – This button brings you to the screen where you can view all the completed tests that are currently stored on the RadStar Alpha.

Back to device view – This button will send you back to the List of Devices screen.

#### RadstarAlpha.com



Radon Management Cloud Stg		- 🗆 X
		& email@email.com ▼
RADSTAR	RadStar α830 8001 List of Devices >> RadStar α830 8001	€ □, ¢
List Of Devices		
Current Device: 8001	CON	INECT
Help / Support	CREAT	TE TEST
App Settings	DOWNLOAD INC	COMPLETE DATA
EXIT	END	TEST
	EDIT TES	T DETAILS
	COMPLE	TED TESTS
	Back to d	levice view

#### lcons

The following 3 icons appear on the Current Device screen after you have successfully connected to a RadStar Alpha.



From left to right, these icons are:

- Refresh State Use this button at any time to refresh the connection to the RadStar Alpha and retrieve updated information such as recent radon readings or tamper events.
- Battery Indicator Shows current battery level and charging status indicated by lighting bolt when charging.
- **Device Settings** When connected to a RadStar device, click on the gear in the top-right on Current Device screen to see Device Settings. On this screen you can reset the QC Counter. Clicking on Reset will set the internal counter on the RadStar Alpha back to zero.



# Create Test using Desktop App

If there is no test currently running At this point, you can create a test if there is not already a test running on the RadStar

- 1. Click on **Create Test**
- 2. It is not required to set a Delay or Reported Hours, however, if you choose to do so:
  - a. **Delay** this dropdown menu contains the options of No Delay, 12-Hour Delay, 24-Hour Delay and Custom Delay. If you choose Custom Delay, a text box appears that allows you to enter a number which is the number of hours you want to set for the delay before the official radon test begins.
  - b. Report Hours if you leave this field blank, the test will run until you manually stop it via the Mobile App, Desktop App or Hardware button. If you enter a number in this screen, that number represents the number of hourly readings the test will run before the RadStar Alpha automatically stops the test. (Example: enter 48 in this field and the RadStar Alpha will automatically end the test after 48 hourly readings are recorded.)
- 3. You must enter at least the required information fields highlighted in red, which include Contact Name, Contact Email, and Address 1. You can also add relevant information on the QC, Notes and Photos tabs. After completing this form, scroll to the bottom and select **Start Test**.

	4 H			A email@email.o		
RADSTAR	RadStar α3			🗊 † 🕻		
ist Of Devices	Details	QC	Notes	Photos		
	Test ID		Test status			
Current Device: 31006			Incomplete	Incomplete		
	Model		Serial	Serial		
Help / Support	RadStar o310		31006			
	Tester Name		Company Name			
an Catting	Radon Tester		Radon Management Cloud, Inc.			
pp Settings	Delay (hours)					
	No Delay					
XIT	Report Hours (leave blank for no	Report Hours (leave blank for no time limit)				
	Contact Name (Required)		Contact Phone			
	Contact Email (Required)		Country			
	Address 1 (Required)		City			
			Cancel	Start test		

#### View While Test is Running

If there is a test already running on the RadStar, the Current Device screen will show you the number of recordings taken so far in the currently running test as well as any warning indicators. The Refresh icon is active on the Current Device screen. This icon will refresh the connection with the RadStar Alpha and update the information being reported to the desktop app such as the number of readings in the currently running test and any tamper events that have occurred.



RadstarAlpha.com

B Radon Management Cloud Stg		-	E	- c	<
			mail@ei	mail.com	-
List Of Devices	TEST IN PROGRESS				
Current Device: 31006 Help / Support	<ul> <li>17 Readings Recorded TestID 31006-157655524.</li> <li>Warning Indicators Present</li> <li>Tamper</li> </ul>	2			
App Settings	CONNECT				
EXIT	CREATE TEST				
	DOWNLOAD INCOMPLETE DATA				
	END TEST				
	EDIT TEST DETAILS				
	COMPLETED TESTS				
	Back to device view				

# Download Incomplete Data

This feature allows you to download the data of an on-going test without ending the test in progress. When you select Download Incomplete Data, you will receive a message informing you that viewing the data will NOT stop the ongoing test and that this Incomplete Data cannot be used for a real estate transaction as you have not officially ended the test. Selecting OK to this message will bring you to the Test results screen, which will show you all the hourly data for the test. From this screen, you can also edit the Test Details, which will sync to the cloud.

	-					A email@email.co
RADSTAR			α <b>310 3</b> > Test results	1006		■>* <b>‡</b>
List Of Devices			DATA		TEST D	ETAILS
Current Device: 31006		esults evice:	ALPHA310	Interval Re Delay: No de		
Help / Support		erial #: estID #: 3100	31006 6-1576555242			
App Settings	Hour	Radon	Alpha cou	nt T AC B		
	1 2 3	4.1 pCi/L 3.5 pCi/L 1.6 pCi/L	116 101 50	* *		
EXII						
EXII	4 5 6	0.4 pCi/L 0.0 pCi/L 0.0 pCi/L	18 7 8			
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ent	4 5 6 7	0.0 pCi/L 0.0 pCi/L 0.0 pCi/L 0.2 pCi/L 0.1 pCi/L 0.1 pCi/L	7 8 9			
EXIT	4 5 6 7 8 9 10 11 11 12 13	0.0 pCi/L 0.0 pCi/L 0.2 pCi/L 0.1 pCi/L 0.1 pCi/L 0.3 pCi/L 0.4 pCi/L 0.0 pCi/L	7 8 9 13 11 10 15 19 6			
ENT	4 5 6 7 8 9 10 11 11 12	0.0 pCi/L 0.0 pCi/L 0.2 pCi/L 0.1 pCi/L 0.1 pCi/L 0.3 pCi/L 0.4 pCi/L	7 8 9 13 11 10 15 19			



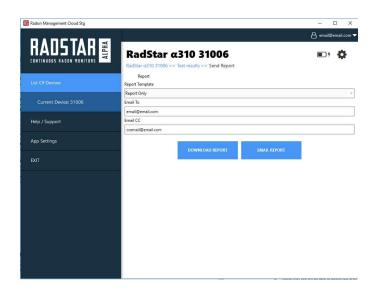
# End Test

If you attempt to End a Test that has less than 48 hours of data, the system will alert you that you have less than 48 hours of test data. You can Confirm and end the test early or you can Cancel and the test will resume. Once you End a Test, you CANNOT restart it to append more data points so make sure you have completed the test before you Confirm.

- 1. Select **End Test** on Current Device screen
- 2. After you Confirm ending the test, the software will download the data from the RadStar Alpha and display it on the Test results screen.
- 3. Click on **COMPLETE TEST** button. When you click on this button, the RadStar Alpha will produce an audible beep telling you that the test has ended.
- 4. Click on **SYNC** button. You will receive a message that reads "The completed test results have been synced to the Radon Management Cloud."
- 5. Click OK
- 6. At this point, you can either further Edit the Test Details or generate the official radon report.
- 7. Clicking on SEND REPORT will send you to the Report screen.

#### Report Screen

On the report page, select **Download Report** to open the report as a PDF on your Windows computer (Internet connection required). You also have the option to change the Report Template to generate the official radon report in whichever PDF report template you choose. You can select **Email Report** to have report sent to an email address(es) entered as a PDF attachment. The customer's email address will be populated in the Email To field by default.



## Edit Test Details

If you are connected to a RadStar Alpha while a test is in progress, you can select the Edit Test Details button and edit the test details for this test. Saving those test details will automatically sync changes to the Radon Management Cloud.

## **Completed Tests**

If you are connected to a RadStar Alpha Series device that has completed tests stored on its hard drive, you can use the Completed Tests feature to view tests that are on the device. Each RadStar Alpha Series will store up to 5 tests on its local hard drive. If you already have 5 tests in the local storage, the desktop app will prompt you to

delete an old test before you can start a new test. NOTE: You can only delete tests that have been successfully synced to the Radon Management Cloud.

- 1. Click on Completed Tests
  - a. This will lead to the Completed Tests screen which lists all completed tests still stored on the device
  - b. IMPORTANT NOTE: The RadStar Alpha Series will save up to 5 tests at one time. If you start a sixth test using the hardware buttons, the RadStar will automatically delete the oldest test in the memory. So, it is critical to complete these steps in order to save test data to the cloud after downloading each test.

Kadon Management Cloud Stg		– D × A email@email.com ♥
RADSTAR	RadStar 0830 8001 List of Devices => RustRar obtol #001 >> Completed Tests	℃ □, \$
	8001-1539628233	
Help / Support	16 0.8 pCi/L 12 0.9 pCi/L	
App Settings	JUL O 11 Records	
	8001-1539069978	
	11 0.9 pC//L JUL ○ 30 Records 23 1.0 pC//L MAY ○ 4 Records 10 PC/L	
	- Core	of lighted from

- 2. On the Completed Tests screen
  - a. If you see a red sync icon, where the test has not yet been synced to the Radon Management Cloud. In order to sync the test to the cloud, you must first provide minimum Test Details.
  - b. If you see a black trash icon, the test has been synced to the cloud and you can click on the trash can to delete this test from the RadStar Alpha.
  - c. Click on the red Test Details icon . This will bring you to the Test Results page.
  - d. Click on Edit Test Details. You will receive a prompt saying "You must enter Test Details to complete the test." Clicking OK to this message will bring you to the Edit Test Details form.
- 3. Complete the required information in the Edit Test Details form and click Save. You will receive a prompt saying "The test details have been synced to the Radon Management Cloud." Clicking OK to this message will bring you back to the Test results page.
- 4. Click on the **Sync** button. You will receive a prompt saying "The completed test results have been synced to the Radon Management Cloud". Click OK
- 5. Click Send Report. This will bring you to the Send Report screen.
  - a. Notice that you will be able to delete test after successful sync



# "Legacy Devices" - RadStar RS300, RadStar RS800 and Sun Nuclear 1027

# Select the Correct Model Device

The new Radon Management Cloud Desktop application and cloud service is backwards compatible to work with legacy RadStar RS300 and RS800 devices as well as the Sun Nuclear 1027 continuous radon monitor. You can create tests and download monitor data using the Desktop version of the software, which will upload the test details to your account in the web application. All tests uploaded to the Radon Management Cloud web server will show in your online Dashboard and will have all the same features as the RadStar Alpha Series in terms of Report and Email customization and delivery.

NOTE: The RS300, RS800 and SN1027 do not use Bluetooth and cannot be used with the Radon Management Cloud mobile app.

To use the Radon Management Cloud Desktop application with a legacy device, you must first choose which model device you are using. After successful login to the Radon Management Cloud Desktop application, you will be on the **List of Devices** screen. On this screen, select the model continuous radon monitor that you are going to be using. It is critical that you select the correct model from the list – SunNuclear SN1027, RadStar RS300 or RadStar RS800.

B Radon Management Cloud Stg		-	o x
		A dnaggar@s	pruce.com 🔻
RADSTAR	List of Devices	<u> </u>	C
List Of Devices	SunNuclear SN1027		
Help / Support	RadStar RS300		
App Settings			
EXIT	RadStar RS800		



# Create Test

For all three model legacy devices, the process for creating a test is the same. After you have chosen the correct model continuous radon monitor,

1. Select **CREATE TEST** from the Current Device Screen

Radon Management Cloud Stg		- 1	o ×
	A RS800 List of Devices >> RadStar RS800	dnaggar@sp	oruce.com 🔻
List Of Devices			
Current Device: R5800			
Help / Support			
App Settings	CREATE TEST		
EXIT	OPEN TEST		
	Back to device view		

- 2. This will bring you to the Create Test / Test Details page. Enter (at least) the required fields to create the test. You do not have to enter all fields to create a test as the test details can be updated later.
- 3. When done entering data for the test, select the **Create test** button in the bottom-right.

	RS300 List of Devices >> RadStar RS300 >> Create	Test		
st Of Devices	Details	QC	Notes	Photos
	Test ID		Test status	
Current Device: RS300			Incomplete	
	Model		Serial	
p / Support	RadStar RS300		R5300	
	Tester Name		Company Name	
Settings	Radon Tester		Radon Management Cloud, Inc.	
p betangs	Start Date/Time (EST) (Required)		End Date/Time (EST)	
т		09/24/2019 11:22 AM 🔹 🇰		<u>.</u>
	Delay (hours)			
	No Delay			
	Contact Name (Required)		Contact Phone	
	1			
	Contact Email (Required)		Country	
	Address 1 (Required)		City	
	Addeser 7		teres	

4. Selecting the Create test button will save the test on your local computer. You will be redirected back to the Current Device screen. Now that you have created a test, the options on this screen have updated to Test Details, Download Data, Results (disabled until after you download data from CRM), Reports (disabled until after you download data from CRM), and Close Test.

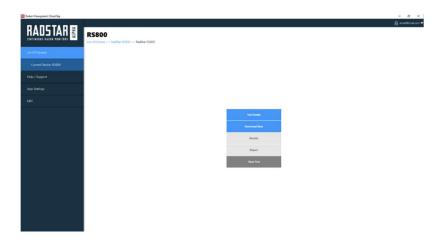
NOTE: Unlike the RadStar Alpha Series, test details and results for the RadStar RS300, RadStar RS800 and Sun Nuclear 1027 do not sync to the Radon Management Cloud until after the test results have been downloaded from the continuous radon monitor.



# Download Data

For all three model legacy devices, you being the process of downloading test results from the continuous radon monitor by:

- 1. Make sure that your CRM is plugged in to your Windows computer using your data cable.
- 2. Select the **Download Data** button on the Current Device screen.
  - a. NOTE: This can only be done after you have created and/or opened an existing test on your computer.



Selecting **Download Data** will bring you to the Download Data screen, **WHICH IS DIFFERENT** for each of the three legacy devices – RadStar RS800, RadStar RS300 and Sun Nuclear SN1027. The Download Data screen will display instructions for downloading the data from the device based on the model you selected on the List of Devices screen.

The steps for downloading test results from your RadStar RS800, RadStar RS300 and Sun Nuclear SN1027 are basically the same as with your old software. You have to push the same buttons in the same order on the hardware to initiate the data download. The following screenshots and instructions are the Data Download screen for each monitor.

If you see an **error** under the **"Waiting for data on port"** dropdown menu, you need to change the COM port on your Computer. Click on the dropdown menu and select the correct COMM port for your Legacy CRM. You may need to turn your CRM off and on again and re-do the steps to Download the test results from your continuous radon monitor.

**Refer to Comm Port Selection** later in this section for more details on COMM ports and drivers for the different legacy model.



#### RadStar RS800

- 1. Select Download Data and arrive at the Download Data screen
- 2. Turn the RS800 key to KEYPAD ON
- 3. Press the **NEXT** button on your RS800 to select device menu option. Keep pressing NEXT until you see DOWNLOAD on the RS800 screen.
- 4. When DOWNLOAD is displayed on the screen, press the ENTER button on your RS800
- 5. The download should now begin on your screen and a progress bar will show as the data is downloaded from your RS800 to the Radon Management Cloud Desktop app.

Radon Management Cloud Stg			- 0	×
RADSTAR	RS800 List of Devices >> RadStar RS800 >> Test	s >> Test results >> Downloa	👌 dnaggar@spruce.cc	om 🔻
Current Device: RS800	Download Data	COM1	Waiting for data on port	
Help / Support		Unable to connect to C	OM1. Please change port or try later.	
App Settings	RS800			
EXIT	1 Turn the key to KEYPAD ON 2 Press the NEXT button to select option	device menu		
	3 When DOWNLOAD is displayed press the <b>ENTER</b> button	on the screen,		
			Cancel	

## RadStar RS300

- 1. Select Download Data and arrive at the Download Data screen
- 2. Turn the RS300 key to **KEYPAD ON**
- 3. Press the **PRINT** button on your RS300
- 4. The download should now begin on your screen and a progress bar will show as the data is downloaded from your RS300 to the Radon Management Cloud Desktop app.

Radon Management Cloud Stg			- 🗆 ×
RADSTAR	RS300 List of Devices >> RadStar RS300 >> RadStar RS	300 >> Download Data	👌 dnaggar@spruce.com ♥
List Of Devices			
Current Device: RS300	Download Data	COM1	Waiting for data on port
Help / Support	Download Data		. Please change port or try later.
App Settings	RS300		
EXIT	Turn the key to KEYPAD ON     Press the PRINT button on the device		
			Cancel



## Sun Nuclear 1027

- 1. Select Download Data and arrive at the Download Data screen
- 2. Verify key switch is set to enable and power is supplied to the Sun Nuclear 1027 unit.
- 3. Press and hold both buttons on top of the 1027 until yellow LED lights solid, then release both buttons; yellow LED will start flashing
- 4. While yellow LED is flashing, press and release the PRINT button
- 5. Upon releasing the PRINT button, the download will begin and progress bar will appear in software

Baseline Control Contr	B Radon Management Cloud Stg			- 🗆 X
Current Device: SN1027       Def / Support         Ap Settings       Image: Comparison of the Compa	RADSTAR		unNuclear SN1027 >> Tests >>	
Current Device SW1027       Download Data       CMI       •         Help / Support       Unable to connect to COMI. Please change port or try later.         App Settings       EXIT       1 Writy key switch is set to enable and power is supplied to the unit.       •         Out will yellow LDD filts suid, then release both buttors on top of the 1027 will yellow LDD will stating.       •       •         Other Devices and Presson       •       •       •         Out will yellow LDD will stating press and release both buttors on top of the 1027 will yellow LDD will stating press and release.       •       •         Other PRINT buttor.       •       •       •       •         Out will yellow LDD will stating press and release both buttors on top of the 1027 will yellow LDD will stating press and release.       •       •         Out makes the PRINT buttor.       •       •       •       •         Out makes the PRINT buttor.       •       •       •       •         Out makes the PRINT buttor.       •       •       •       •       •         Out makes the PRINT buttor.       •       •       •       •       •       •         Out makes the PRINT buttor.       •       •       •       •       •       •       •       •         Out makes the PRINT butto	List Of Devices			
Help / Support       Urable to connect to COM1. Please change port or try later.         App Settings <ul> <li>Work to post to the set to connect to COM1. Please change port or try later.</li> <li>Setting</li> <li>Work to post to the set to connect to COM1. Please change port or try later.</li> </ul> EXIT <ul> <li>Work to post to the set to connect to COM1. Please change port or try later.</li> <li>Please and help to the trunt on top of the 1007 with your to Digits solid them clease both. Yellow LDD will satt flashing.</li> <li>When elseing the FINIT button.</li> <li>Work reasing the FINIT button, the downlead work to provide and progress bar will appear in others.</li> </ul>	Current Device: SN1027			Waiting for data on port
Help / Support         App Settings         EXIT         Output         Mark Settings         Output         Mark Settings         Output         Press and hold both buttors on top of the 1027 mithy ellow LED light solid, then release both Year Setting and Pellow LED light solid, then release both Year Setting the PRINT button.         Output       While yellow LED light solid, then release both Year Setting the PRINT button.         Output       While yellow LED light solid, then release both Year Setting the PRINT button.         Output       While yellow LED light solid, then release both Year Setting the PRINT button.		Download Data	Protoci i	*
App Settings       1       Verify key solitch is set to enable and power is supplied to the unit.         EXIT       2       Pass and id both buttors on top of the 1037 buttors. On top of the 1037 buttors. On top of the 1037 buttors. Verifox LED in glass solits, then release both verifies.         3       Weise PKINT buttors.         4       Upon releasing the FKINT buttors, the download working in ad pogenes bar will appear in others.	Help / Support		Unable to connect to COP	M1. Please change port or try later.
EXIT       Press and hold both buttons on top of the 1027 unitly velow LED light solid, then mease both velow LED light solid, the velow LED light so	App Settings	Verify key switch is set to enable and	1 power is	
Cincel	EXIT	Press and hold both buttons on top until yellow LED lights solid, then re buttons. Yellow LED will start flashing.     While yellow LED is flashing, press a the FRINT button, t Upon releasing the FRINT button, t	lease both nd release he download	
				Cancel

#### Comm Port Selection

The Desktop app will not always find the appropriate driver for your legacy device. If you are receiving an error message or having trouble downloading your data from the continuous radon monitor, you must choose the correct COMM port from the dropdown menu. If you are using the data transfer cables that were supplied to you when you purchased your CRM, you will want to select the COM port as follows:

Continuous Radon Monitor Model	Description in COMM Dropdown Menu
RadStar RS800	Prolific USB-to-Serial Comm Port
RadStar RS300	Prolific USB-to-Serial Comm Port
Sun Nuclear 1027	ATEN USB to Serial Bridge



# Test Results Screen

For all three model legacy devices, you will be redirected to the Test Results page after the test results have completed downloading from your continuous radon monitor.

From the Test Results screen you can:

- 1. Preview the test results on the Data tab
- 2. Edit the Test Details for the current test

	023	28				
List Of Devices	List of D	evices >> RadSta	ATA	s >> Test resul		EST DETAILS
Current Device: RS800		evice: RS800	Interval F Delay: 24			Clear Data
Help / Support		rial #: 02328 stID #: 80093				Download Data
App Settings	A	verage: < 0.3 pCi	/L	Minimum:	0.0 pCi/L	Maximum: 0.3 pCi/L
	Hour	Radon	Alpha count	Temperature	Humidity Pressu	re T AC B
EXIT	25	0.0 pCi/L	2	64 *F	11 %	
	26	0.0 pCi/L	3	63 *F	11 %	
	27	0.0 pCi/L	0	62 *F	11 %	
	28	0.1 pCi/L 0.0 pCi/L	6	62 *F 61 *F	12 %	
	30	0.0 pCi/L	0	61 °F	11 %	
	31	0.0 pCi/L	0	60 °F	11.%	
	32	0.0 pCi/L	2	60 °F	11 %	
	33	0.1 pCi/L	4	61 °F	11 %	
	34	0.0 pCi/L	2	63 °F	11 %	
	35	0.1 pCi/L	4	65 °F	9 %	
	36	0.0 pCi/L	2	65 °F	9 %	
	37	0.0 pCi/L	0	66 °F	9.%	
	38	0.0 pCi/L	0	66 °F	9 %	
					Send Report	Edit Test Details

After you have reviewed the Test Results and finalized the Test Details, you are ready to upload the results to the Radon Management Cloud and Generate the Official Radon Report.

- 1. Press the Sync button. You will receive a message the reads "Test details have been uploaded correctly. Once you receive this message, the test details and results are now available in the Radon Management Cloud web interface.
- 2. Click OK to dismiss the message box
- 3. You can now download or email your official radon report. To do this now, click on the **Send Report** button. This will bring you to the **Send Report** screen.

	List of [	Devices >> RadSt	tar RS800 >> Tes	ts >> Test resu	lts	
		[	DATA		Т	EST DETAILS
Current Device: RS800		esults Device: RS800	Interval   Delay: 24			Clear Data
Help / Support		erial #: 02328	Information		×	Download Data
App Settings	H	Test details has be	en uploaded correct		) pCi/L umidity Pressu	Maximum: 0.3 pCi/L
EXIT				ОК	11 % 11 %	
	27	0.0 pCi/L 0.1 pCi/L	6	62 °F	11 %	
	20	0.0 pCi/L	0	61 *F	11 %	
	30	0.0 pCi/L	0	61 *F	11 %	
	31	0.0 pCi/L	0	60 °F	11 %	
	32	0.0 pCi/L	2	60 *F	11 %	
	33	0.1 pCi/L	4	61 °F	11 %	
	34	0.0 pCi/L	2	63 *F	11 %	
	35	0.1 pCi/L	4	65 *F	9 %	
	36	0.0 pCi/L	2	65 °F	9 %	
	37	0.0 pCi/L	0	66 *F	9 %	
		0.0 pCi/L	0	66 *F	9 %	



# Send Report

The Send Report screen provides the same functionality for all 3 legacy devices (also identical to the features of the RadStar Alpha series).

NOTE: You must have an Internet connection to generate, download or send an official radon report.

#### Download Radon Report or Report Components

To generate and download a PDF of the official radon report to your computer

- Select the Report Template from the dropdown menu that you wish to use for generating the radon report. Your Company's default template will be pre-populated in this dropdown menu (default company template is set up in the website app.)
- 2. Click on the DOWNLOAD REPORT button
- 3. The PDF will be created and downloaded to your Windows computer. The report will automatically open in your computer's default PDF viewing program.
  - a. If you do not have a PDF viewing program on your computer, you can download Adobe Acrobat Reader from <a href="https://get.adobe.com/reader/">https://get.adobe.com/reader/</a>

**To download a CSV file** that includes all of the details for this specific test, click on the **Export CSV** link below the DOWNLOAD REPORT button. After you click **Export CSV**, you receive a Save As dialog box. Select the location on your computer that you want to save the CSV file and enter a name for the file. Select Save. You can now open the CSV file by opening the file from the location to which you just saved it.

**To download a Chart image file (PNG)** that includes the results for this specific test, click on the **Export Chart** link below the EMAIL REPORT button. After you click **Export Chart**, you receive a Save As dialog box. Select the location on your computer that you want to save the PNG file and enter a name for the file. Select Save. You can now open the PNG file by opening the file from the location to which you just saved it.

## Email Report

#### To generate and email the official radon report:

- 1. Select the Report Template you wish to use from the dropdown menu
- Enter the Email To and/or Email CC email addresses where you want the email and pdf report sent

   The contact email from the test details will be automatically populated to the Email To field.
- 3. Click **EMAIL REPORT** button
- 4. You will receive a message that reads "Report email has been sent to recipients"
- 5. Click OK. The radon report has been emailed to all recipients using the customized settings and content that your Company Admin has set in the Radon Management Cloud website app.

#### RadstarAlpha.com



Radon Management Cloud Stg	-	
	02328 List of Devices >> RadStar RS800 >> Tests >> Test results >> Send Report	@spruce.com 🔻
	Report Report Template	
	Cover And Report	*
	Email To	
	DN2@email.com	
Help / Support	Email CC	
App Settings	DOWNLOAD REPORT EMAIL REPORT	
EXIT	Export CSV Export Chart	

# **Open Tests / Delete Tests**

From the Current Device screen, there is the option to **OPEN TEST**. Selecting this button will bring you to the Tests screen.

Û

1. Open a test that you previously created on that computer by clicking on the paper icon



Radon Management Cloud Stg		- 🗆 X
RADSTAR	RS800 List of Devices >> RadStar RS800 >> Tests	👌 dnaggar@spruce.com 🤊
List Of Devices	Open Tests O Show open tests Show archived tests	
Current Device: RS800	Show all tests	
Help / Support	DN Test	
App Settings		
EXIT	ocr 📀	
	Cancel Upload Test	Open Test



# FCC Rules

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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. Ifvthis 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.

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme à la norme RSS Industrie Canada exempt de licence. Son fonctionnement est soumis aux deux conditions suivantes:

- 1. cet appareil ne doit pas provoquer d'interférences
- 2. cet appareil doit accepter toute interférence, y compris les interferences pouvant causer un mauvais fonctionnement du dispositif.