RADSTAR RS500 OPERATING INSTRUCTIONS

**WARNING! IF THE KEYSWITCH IS TURNED TO THE [OFF]
POSITION DURING OR AFTER A TEST, ALL DATA WILL
BE ERASED**!

1.0   SETTING UP THE RS500:

1. Looking at the right side of the unit, locate the battery holder- it is
   marked "BATTERY". Remove the battery cover by turning it
   counterclockwise. Insert three fresh "C" cell batteries into the
   battery holder, minus end first. Replace the battery cover by turning
   it clockwise, making sure that it is snug. Plug the AC/DC adapter
   (the one marked "RS500 POWER SUPPLY") into a 110VAC power
   source. Plug the power jack from the the adapter into the socket on
   the left side of the unit. The green LED should come on. The unit is
   now ready to operate.

2.0   TURNING UNIT ON:

1. Insert the key into the slot and turn it one click to the right to the
   [KEYPAD ON] position. Note that the key cannot be removed in
   this position.
2. The display will activate and read:

> Radstar RS500
> By RadonAway
> Copyright 2002
> Time (24Hr) 08:00

3. At this time, unplug the power jack from the left side of the unit.
   The green LED should go out but the display should still be active.
   This will verify that the batteries have been installed correctly, so
   that in case of an AC power outage none of the data will be lost.
   Also note that if there is no AC power source present, the unit can be

run on its batteries for a nominal test period of 48 hours. Now plug the power jack back into the unit noting that the green LED is on.

3.0 SETTING UP THE DISPLAY:

1. Press the UP [^] button on the keypad once , and the display will read:

<div align="center">Year: 2001</div>

Using the PLUS [+] and MINUS [-] buttons on the keypad, set the display to the correct year.

2. Pressing the UP [^] button once again advances to the date mode:

<div align="center">Date (mm/dd) 01/01</div>

Using the PLUS [+] and MINUS [-] buttons set the correct month. Using the UP [^] and DOWN [v] buttons scroll to the day mode and set the correct day by using the PLUS [+] and MINUS [-] buttons or by alternately using the UP [^] and DOWN [v] buttons and the PLUS [+] and MINUS [-] buttons.

3. Pressing the UP [^] button again scrolls to :

<div align="center">Time (24HR) 08:00</div>

Using the PLUS [+] and MINUS [-] buttons set the correct hour – you may also set the correct hour by alternately using the UP [^] and DOWN [v] buttons and the PLUS [+] and MINUS [-] buttons. At any time you may recheck your entries by scrolling back and forth using the UP [^] and DOWN [v] buttons.

4. Pressing the UP [^] button once again scrolls to :

Interval: 1 HR

You may adjust the test interval using the UP [^] and DOWN [v] buttons. The unit can test for up to 64 intervals. The 1 hour interval is normally used for a 48 hour radon test. If the unit is set at 1 hour it will test for 64 hours – if it is set at 2 hours it will test for 128 hours, etc.

5. Pressing the UP [^] button once again scrolls to:

Test Ramp 119:59

This setting is fixed at this value and cannot be changed. The unit is now ready to monitor for radon gas.

4.0 MONITORING FOR RADON GAS:

1. Turn the key one click to the right to the [MEASURE ON POSITION]. The unit will automatically start to count down for two hours and then begin to monitor for radon gas. The key may be removed in the [MEASURE ON] position to prevent tampering with the unit while testing.

5.0 SETTING UP THE PRINTER:

1. Install the paper roll per the instructions supplied with the printer.
2. Plug the AC/DC adapter (the one marked "PRINTER POWER SUPPLY") Into a 110VAC power source. Plug the power jack from the adapter into the back of the printer.
3. Connect the D-sub cable supplied with the unit to the printer and the RADSTAR.
4. Turn the printer on via the rocker switch: the red LED should come on.

6.0 OBTAINING A TEST REPORT PRINTOUT:

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1. After completing a test turn the keyswitch one click to the left to the [KEYPAD ON] position.
2. Press the UP [^] button three times to scroll to :

Print Interval?

3. Press the PLUS [+] button once and the question mark will change to "Y".

4. Press th UP [^] button again and the RADSTAR will begin printing a test report on the printer. Note that if the unit has been moved during a test an "I" will appear in the TAMPER section of the stripchart.

5. When the printout is complete the RADSTAR may now be shut off by turning the key one click to the left to the [OFF] position. The key may also be removed in this position.

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or

6. The unit will display:

Memory Not Clear

7. Press the UP [^] button once to clear memory. The unit will display:

Clear Memory?

8. Press the PLUS [+] and MINUS [-] buttons simultaneuosly. The unit will display:

Memory Cleared

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7.0 OBTAINING A REPEAT PRINTOUT:

1. From the [MEMORY NOT CLEAR] display readout press the DOWN [v] button once. The display will read:

Print Interval?

2. Now follow the instructions in section 6.0 steps 3-5 for a second printout.

8.0 OBTAINING READING FROM THE RADSTAR RS500 DISPLAY:

1. After completing a test or during a test turn the keyswitch one click to the left to the [KEYPAD ON] position.

2. Pressing the UP [^] button once on the keypad gives you the average reading in pCi/l of radon gas.

3. Pressing the UP [^] button again gives you the current reading in pCi/l of radon gas.

4. Pressing the DOWN [v] button twice brings the display back to the INT (interval) /HRS (hours) readout. The unit may be left in the other display positions (current or average) without affecting its operation or the keyswitch may be turned back to the [MEASURE ON] position to lock out the keypad. The key may also be removed in this position to prevent tampering with the unit.

9.0 DOWN LOADING DATA TO THE RADSTAR DATA CAPTURE UTILITY:

1. Open RadStar Data Capture program (Double Click Desk Top Icon or start, All Programs, RadStar Data Capture Utility, Launch RadStar Data Capture Utility)

2. Connect Cable from Computer USB Port to Print Port on the front of the RadStar Unit.

3. In the RadStar Data Capture screen select Setup, RadStar Unit, RS500.

4. In the RadStar Data Capture screen select Setup, Comm Port, Com#. (default Com# is Com4 but may vary if Com4 was in use when software was installed)

5. In the RadStar Data Capture screen select DownLoad Data.

6. On the RadStar Unit with the Key Switch in the [KEYPAD ON] use the UP[^] or DOWN[v] buttons until the display reads "Print Interval N" or "Print Interval ?"

7. Press the PLUS[+] button once, the display now reads "Print Interval Y".

8. Press the UP[^] button once and data will be Down Loaded to the RadStar Data Capture Program.

9. A pop up window reading "Download Complete! will appear on the RadStar Data Capture Screen when Data Download is finished. Click the OK button in the window.

10. To print the results from the RadStar Data Capture Screen to the printer attached to the computer click the Print Results Button.

11. To save the data click the Export Results button, select either Export to TXT File or Export to Comma Delimited CSV File and click the OK button. A "Save As" window will appear with a default filename and file location, edit filename and location if required and click the "Save" button.

12. To obtain a Chart of the results click the Export Results button, select Export to Excel Chart and click the OK button. A chart plotting the results will appear in a Microsoft Excel Window. This spreadsheet may be saved or printed using normal windows program methods.

13. Once all prints required have bee produced and data saved to the computer the key switch on the RadStar unit may be turned to the OFF position and the download cable disconnected.

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