

# SAM 950 Quick Start Instructions

## SYSTEM COMPONENTS



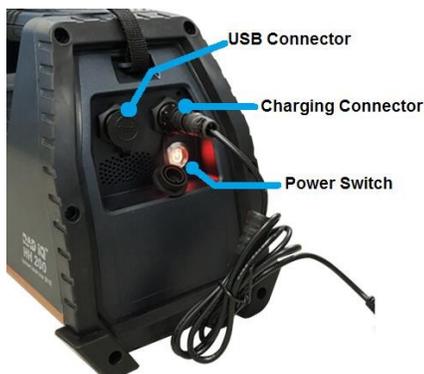
- ① SAM 950 detector unit
- ② DC power adaptor for SAM 950 (DC 12V)
- ③ Vehicle charging adaptor
- ④ Shoulder strap
- ⑤ Water and shock proof carrying case

## OPERATIONAL INSTRUCTIONS

	Move cursor / highlight Left / Right	
	Move cursor / highlight Up / Down	
	Click	Select / execute
	Click & Hold (2 sec)	Start Manual ID
	Click	Back to previous menu
	Click & hold (2 sec.)	Return to main Menu
	Click & hold (2 sec.)	Flashlight on / off



### Power Switch



The LED inside the Power Switch turns red when power is turned on.

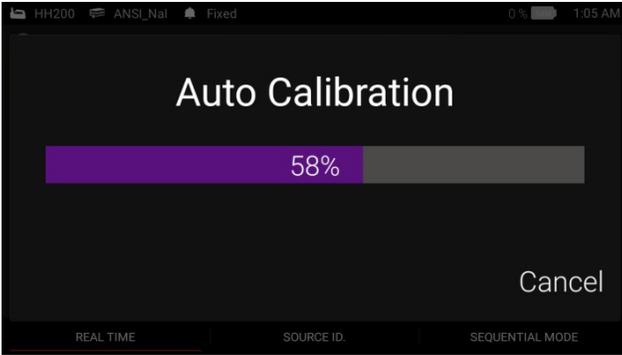


Ensure that the rechargeable batteries in the SAM 950 are fully charged

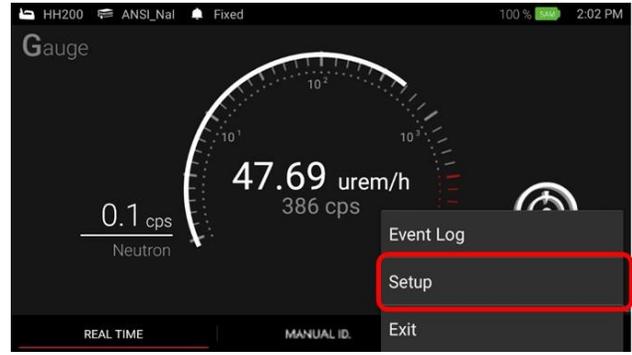


Ensure that no radiation sources are in the vicinity of the SAM 950 when turning power on.

**Wait for Auto Calibration to complete**

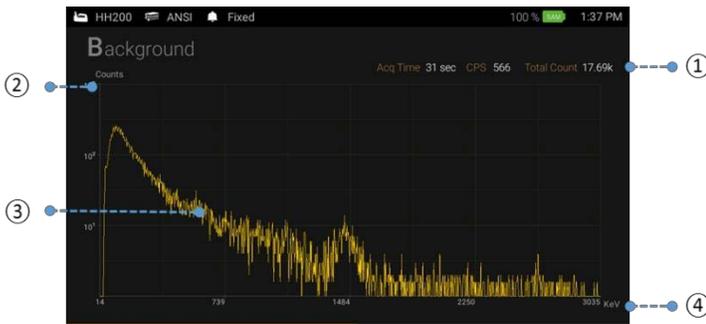
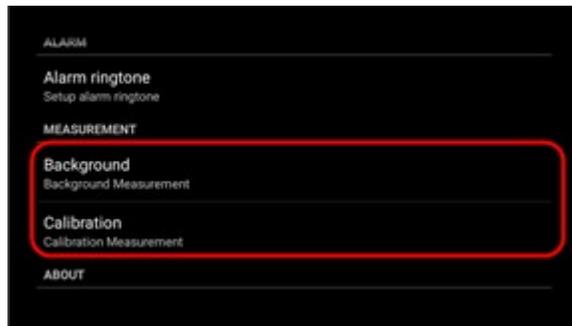


**Background Measurement**



To perform Background Measurement, you must open the Setup menu. Press and hold the  button on the handle, or touch and hold the  icon on the screen.

**Ensure that no radiation sources are in the vicinity of the Model 950 during the Background Reference Measurement.**



**BACKGROUND MEASUREMENT**

1. Select 'Setup' menu.
2. Scroll down and Select 'Background'.
3. Measure background information.

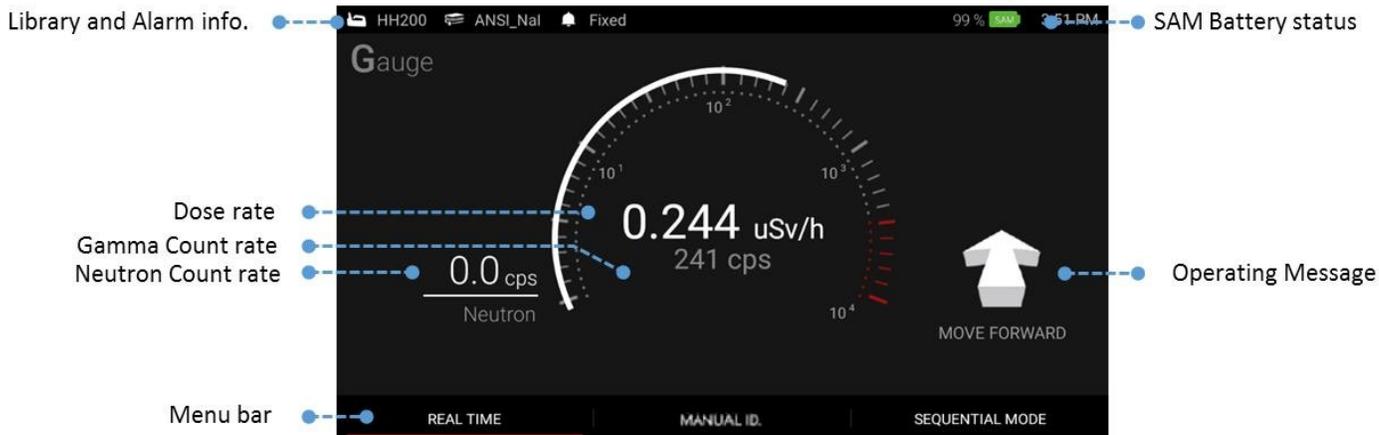
**ENERGY CALIBRATION (Optional step)**

1. Select 'Setup' menu.
2. Place Cs-137 source in front of the SAM 950.
3. Scroll down and Select 'Calibration'.

①	Information	Date/Time, Acq. Time and count rate information
②	Counts	Y-axis unit display (counts in self-adjusting & logarithmic scale)
③	Spectrum	Real time spectrum display
④	Ch/Energy	X-axis unit display (channel or energy in linear scale)

### Radiation Monitoring in Identification Mode

Now the SAM 950 is ready for operation. On the Gauge screen, gamma activity is displayed in both dose-rate (uSv/h or rem/h) and count rate (cps) units.



### Alarm & Isotope Identification

When the SAM 950 alarms, the visible display on the Gauge screen changes to RED and the audible alarm warning is activated.



During Radiation Monitoring, the SAM 950 displays 4 helpful operating messages.

Message	Description
	Count rate/Dose rate is less than optimal for best isotope identification. User should move closer to the radiation source
	Count rate/Dose rate level is higher than optimal for best isotope identification. User should move away from the radiation source
	Conditions are optimal for statistical confidence. Manual ID can be performed in this range
	Count rate/Dose rate level is extremely high and user may need to evacuate immediately or move back to a distance with a safer level.

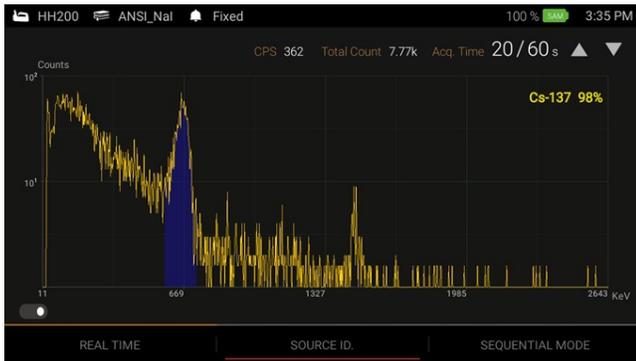
### Manual ID

There are three ways to execute 'Manual ID': 1. Press and hold the **ENTER** 'Enter' key for about 2 seconds, 2. Touch the 'Manual ID' soft key on the main screen, or 3. Use the left/right buttons on the handle to scroll and position the red bar on the 'Manual ID' soft key, then press the 'Enter' key.

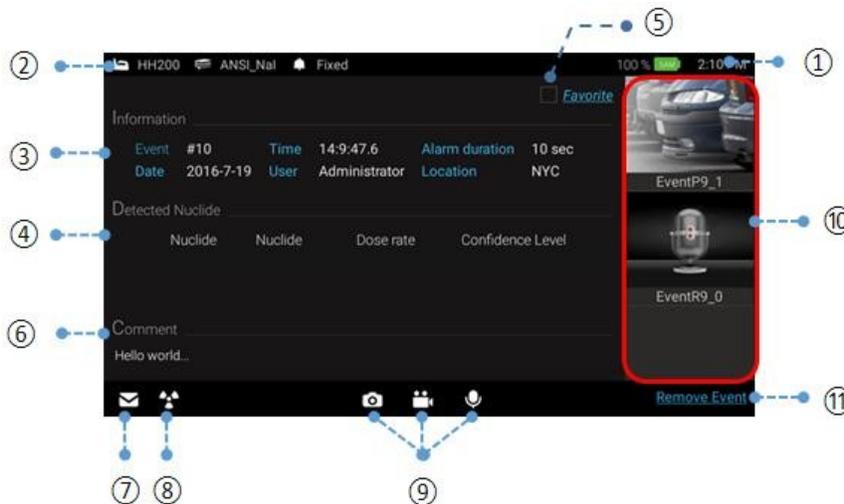
1. Touch the Manual Identification bar and an Event Spectrum will begin immediately.
2. The default capture time for Manual Identification is 30 seconds. You may increase or decrease the capture time by touching the symbols ▲ or ▼ respectively. Default time is increased or decreased in increments of 10 seconds.



Default capture time and increment can be programmable in Setup menu.



When the capture time has elapsed, the Isotope Identification screen will display the ID result screen.

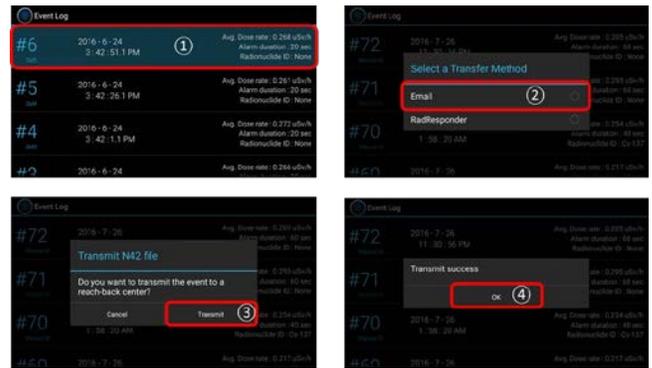
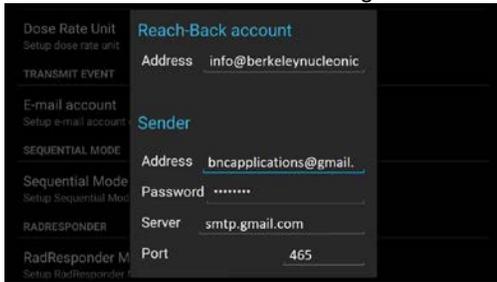


1	Status Bar (right)	Displays battery indicator and time
2	Status Bar (left)	Displays unit name, selected library, and alarm mode
3	Event Information	Event number, Alarm (Manual ID) duration, Date/Time of the event, User and Location information
4	Detected Nuclide	Displays identified isotopes with classification, dose rate, and confidence level
5	Favorite	Check the box to find the Event later as a 'Favorite'
6	Comment	Allows the operator to type a text comment about the event
7	Reach-Back	Allows the operator to transmit the event file to a reach-back center
8	RadResponder	Allows the operator to transmit specific event data to "RadResponder"
9	Media Icons	Attach photo(s), video(s) and/or voice recording to the event file
10	Media List	Review the attached photo(s), video(s) and/or voice recording
11	Remove Event	Allows the operator to delete the Manual ID instead of saving to the Event Log

Press the button on the handle or touch icon on the screen to save the Event file and return to the Gaugescreen

## Transfer Data Via Email

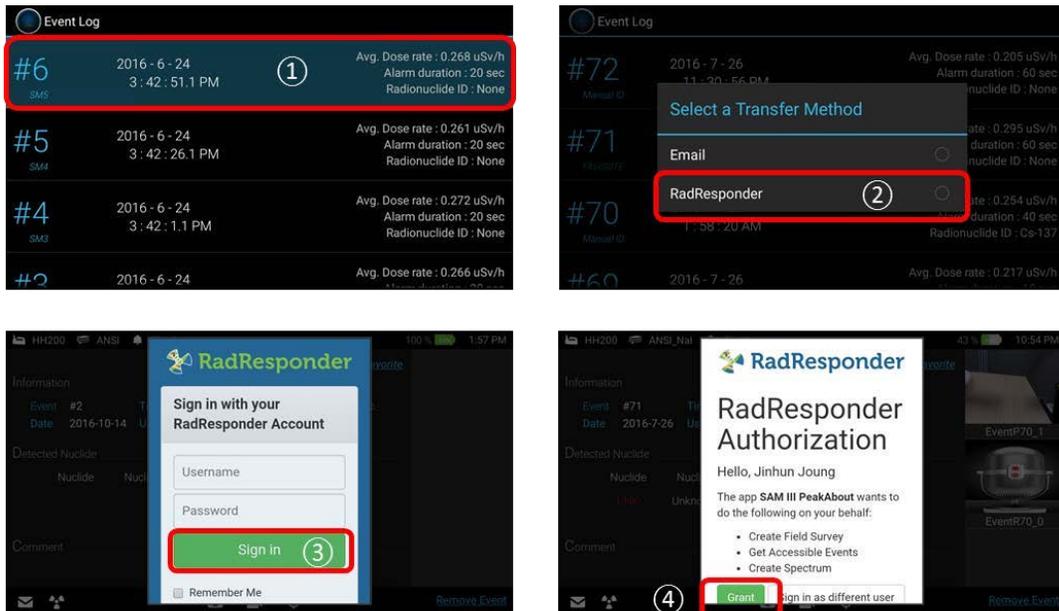
1. Log in as Administrator (refer to Section 4.5.5 in the User Manual)
2. Enter email address and settings



3. Select and transmit an Event.
  - a. Open the Event Log and highlight the Event you wish to send (Figure 4.28, upper left). Touch or long-click the highlighted Event for 2 seconds, or until the Transfer Method menu pops up.
  - b. Select **Email** from the menu (Figure 4.28, upper right).
  - c. At the “Transmit N42 file” prompt, touch or click **Transmit** (Figure 4.28, lower left).
  - d. The system will display “Transmit success” after transmission (Figure 4.28, lower right). Touch or click **OK** to clear this message

## Transfer Data to RadResponder Network

1. Open the Event Log. Use the touch screen or function buttons to highlight the Event you wish to send (Figure 4.29, upper left). Touch or long-click the highlighted Event for 2 seconds, or until the Transfer Method menu pops up.
2. Select **RadResponder** from the Transfer Method menu (Figure 4.29, upper right).
3. Enter your RadResponder user name and password (Figure 4.29, lower left) and touch or click **Sign in**.
4. At the RadResponder Authorization pop-up window, touch or click **Grant** (Figure 4.29, lower right).



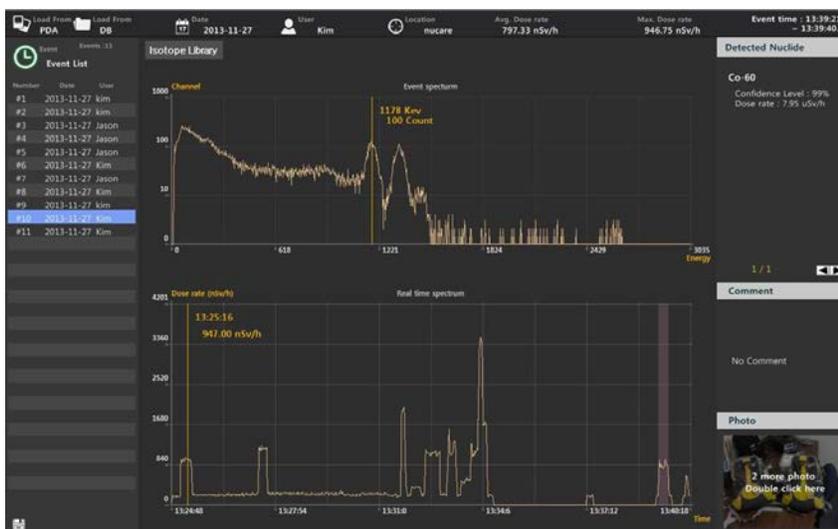
### Transfer Data from SAM 950 to PC

1. Ensure that the SAM 950 is properly connected to the PC (see section 5.1).
2. On the SAM 950, exit PeakAbout II by opening the main menu and touching or clicking **Exit**.
3. On the PC, open PeakID.
4. Click **Load from PDA** (Figure 5.5, upper left).  
PeakID automatically downloads event data to the PC database and deletes it from the SAM 950. Downloaded Events are displayed in the Event List area (Figure 5.5, left).
5. Select an Event from the list to analyze.

The spectrum is displayed in the Event Spectrum area (Figure 5.5, upper graph).

Time and duration are highlighted in the Real-Time Activity area (Figure 5.5, lower graph).

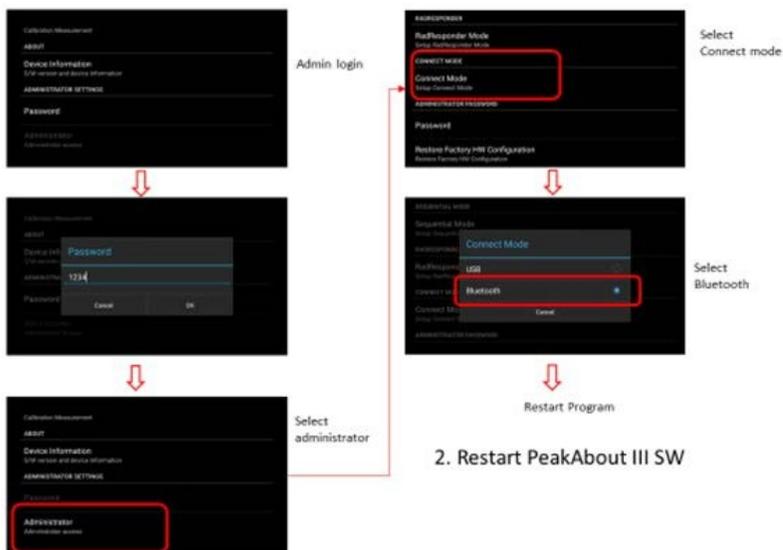
The identity of nuclides detected during the Event is displayed in the Detected Nuclide area (Figure 5.5, upper graph)



### Connection to Android Device

Connection by an external PDA with PeakAbout III SW via Bluetooth connection

1. Switch to Bluetooth connection



Select a target SAM950 unit paired



3. Conduct manual calibration and background measurement