

# SAM 945 Quick Start Instructions

## WARNINGS



**Do not attempt to open the unit.**

**High voltage inside (up to 1000 volts) presents a safety hazard.**

**Opening the unit may void your warranty.**

## SYSTEM COMPONENTS



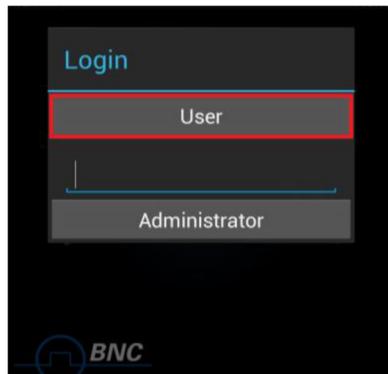
Top row: 1) detector unit, 2) 12V vehicle adapter/charger, 3) carrying case. Second row: 4) shoulder strap, 5) tripod adapter. Third row: 6) USB to micro USB cable, 7) AC to 8.4V DC adapter/charger, 8) smartphone.

## OPERATING INSTRUCTIONS

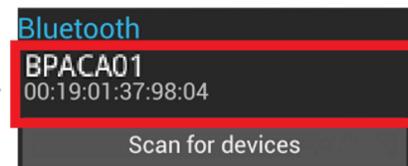
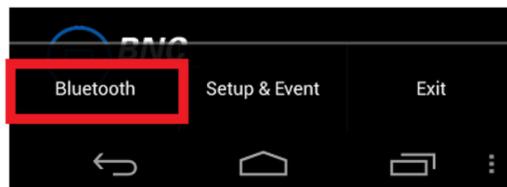
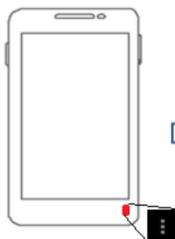
Ensure that the detector unit and smartphone batteries are fully charged.

The detector unit's power switch is on the end panel. **Ensure that no radiation sources are in the vicinity when you turn the power on.**

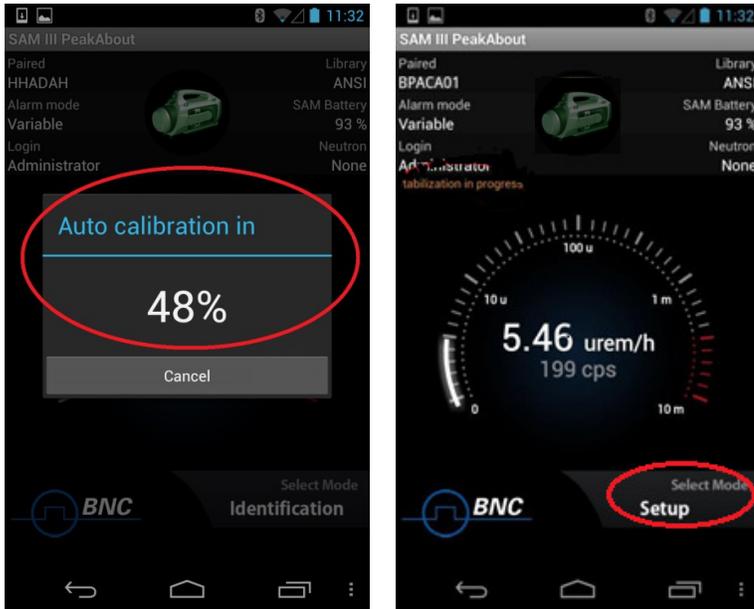
Open the SAM III PeakAbout app and log in.



If PeakAbout does not automatically pair with the detector unit, you will need to establish a connection via Bluetooth.



Auto Calibration will begin automatically after Bluetooth connection is made. After it completes, go to Setup mode by touching **Setup** in the Select Mode area.



Perform background measurement.



Rotate the smartphone 90° counter-clockwise to enter Background & Calibration mode.

Touch the menu button  (top right corner). Touch **Background**. Default acquisition time is 60 seconds.

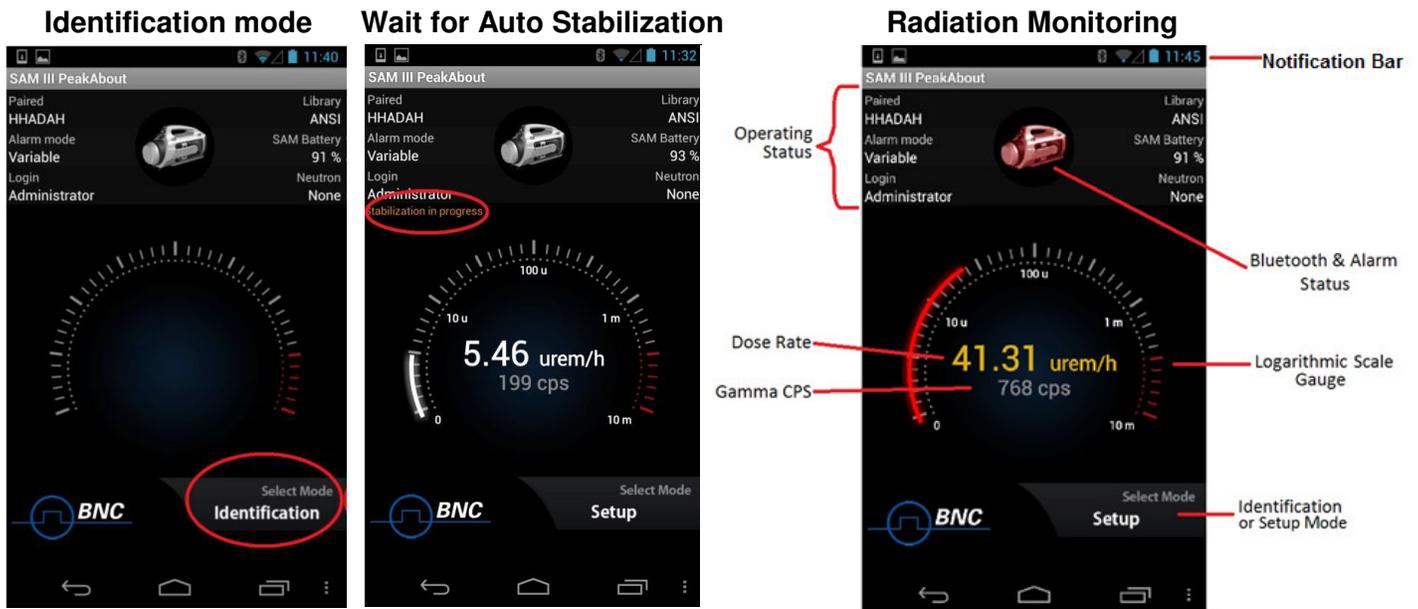


Ensure that no radiation sources are in the vicinity during background measurement.

## Radiation Monitoring in Identification Mode

After background measurement is successful, go to Identification mode by touching **Identification** in the Select Mode area.

**Tip:** When Identification mode is active, the Select Mode area displays **Setup**.



Allow the SAM 945 to collect background statistics for 20 seconds before you approach any radiation sources. This allows automatic correction of background in real time.

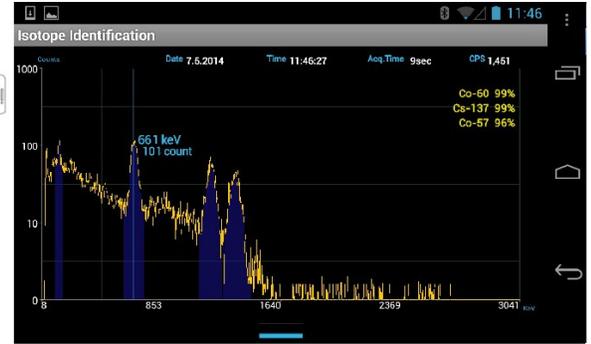
## Alarm Events and Isotope Identification

When gamma activity exceeds programmed dose rate or count rate thresholds, both the gauge and the SAM 945 icon turn red and the audible alarm sounds.

Rotating the smartphone will display the Isotope Identification spectrum. Identified isotopes are displayed together with their confidence levels.

Touch the short blue bar at the bottom of the screen and swipe upward to display the dose rate and classification of the identified nuclide(s) in a bar graph.

When the alarm condition has ended, return the screen to the upright position.



The SAM 945 records vital data and stores it on the smartphone.

## Manual Identification

You may also initiate Isotope Identification when gamma activity is within programmed dose rate or count rate thresholds.

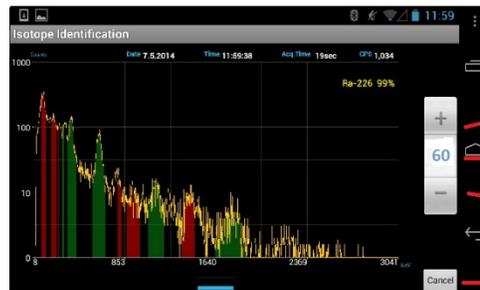
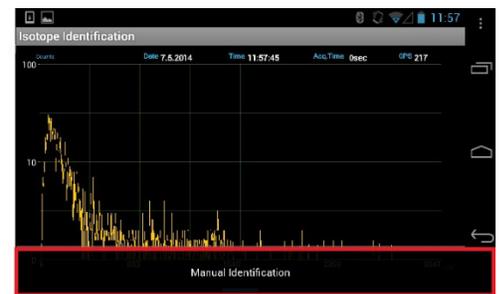
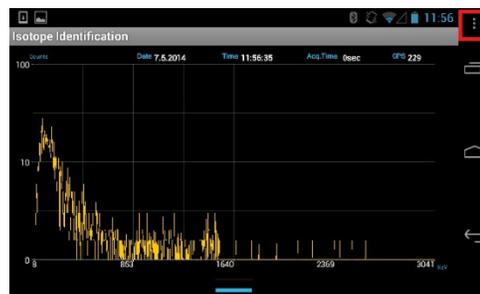
Rotate the smartphone counter-clockwise to display the Isotope Identification screen.

Touch the menu button. The Manual Identification bar is displayed.

Touch the Manual Identification bar and an event spectrum begins immediately.

The default capture time for Manual Identification is 60 seconds. Touching the + or - symbols extends or reduces the capture time.

When the capture time has elapsed, return the smartphone to the upright position.



- Extend ID Time
- Default Manual ID Time
- Reduce ID Time
- Cancel Manual ID

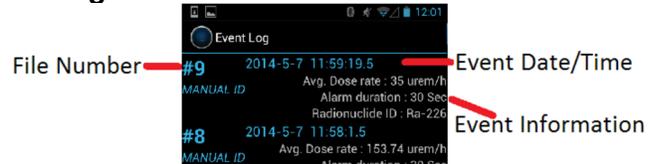
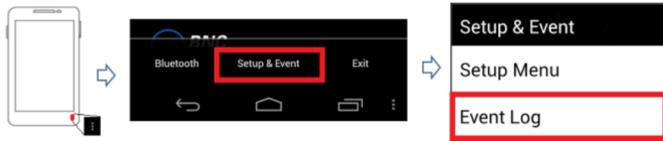
**Tip:** Manual Identification cannot be started if the SAM 945 is already in an alarm condition.

## Event Log List

To view stored events, go to Setup mode by touching **Setup** in the Select Mode area.

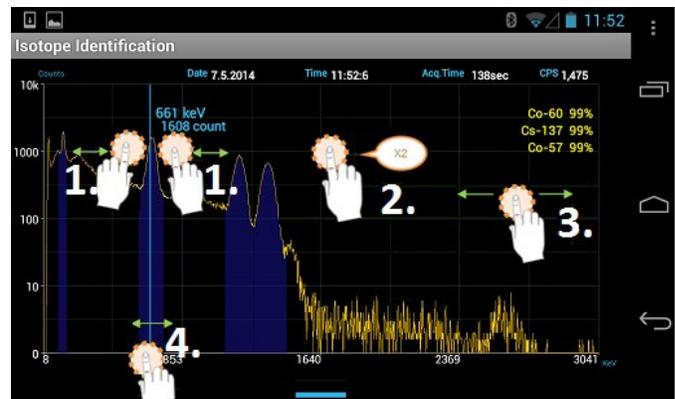
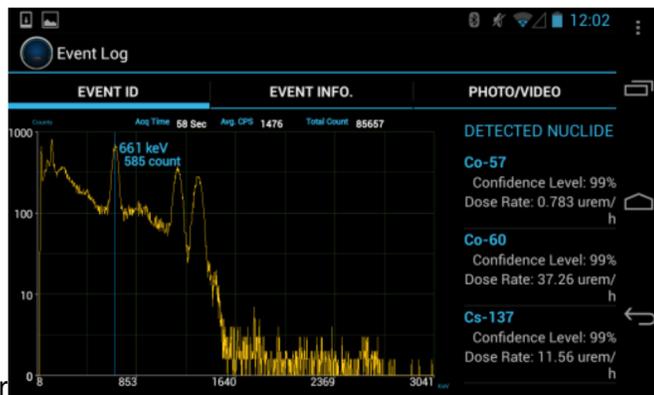
**Tip:** When Setup mode is active, the Select Mode area displays **Identification**.

Touch **Setup & Event** on the menu bar, then touch **Event Log**.



## Event Analysis

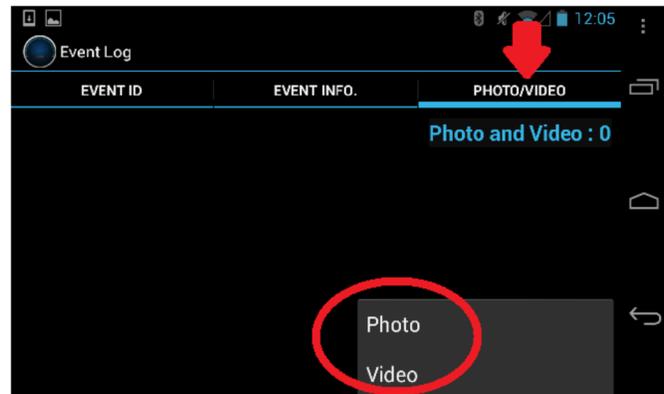
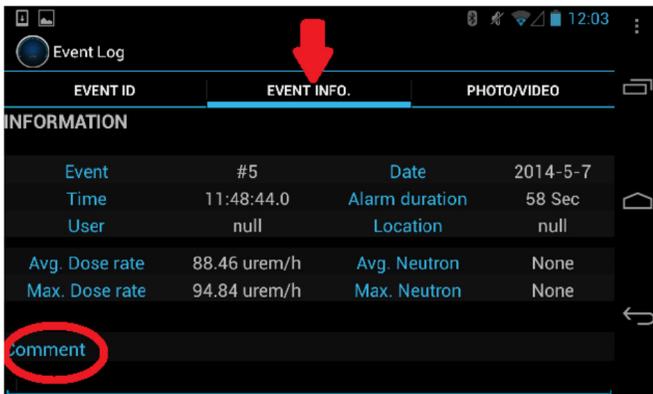
Touch an event on the list, then rotate the smartphone counter-clockwise. The event spectrum and analysis information appear in the Event ID tab.



**Tip:** You can manipulate the spectrum by touching the screen. Event information will be displayed on the right-hand side.

## Comments and Images

Comments may be added by touching the **Event Info** tab, then touching the blinking cursor in the **Comment** field and entering text. Photos or video may be added by touching the **Photo/Video** tab. Touching **Photo** or **Video** will open the camera app.



Touch the screen to capture the photo or video. Touch the **checkmark** to save it, or touch the **X** to reject it. You will automatically return to the **Photo/Video** page.

Touch  (lower right corner) to return to the Event Log. Keep touching  to return to Setup mode, then touch **Identification** to return to Identification mode.