sepura

AutoMate

User Guide

Going further in critical communications

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Contents

1.0 About this Guide

This User Guide describes how AutoMate can function on a radio in the background to automatically perform routine or safety based radio tasks. It also describes how the user can interact with AutoMate if required.

The information in this User Guide relates to using AutoMate on any of the following Sepura Radios:

- SC20
- SC21
- SCG22

Installation and setup of AutoMate is covered by the Sepura AutoMate Administrator's guide.

2.0 AutoMate Overview

Sepura's AutoMate is a powerful AppSPACE radio app that automatically executes routine and safety critical radio tasks, once the radio detects a geofence or a range of other situational triggers.

AutoMate can be configured by the radio administrator to add automation to, simplify and enhance the bespoke workflows. This enables faster execution of routine radio actions, removal of human error and the provision of additional safeguards to keep individuals safe whilst focusing on operational tasks.

AutoMate runs in the background without the need for the user to interact with the radio but the user may be notified of certain actions having been performed or that require attention. Additionally, and if the capability has been set up by the administrator, the user may be able to pause or take control of specific automations via the AutoMate app screen. See "Using AutoMate" on page 4 for more details.

Notifications and feedback are displayed on screen via:

- Message boxes.

  Displays a warning or alert that requires attention. See "Message Box" on page 9 for more details.
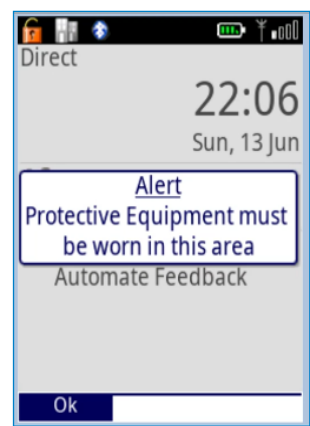
- Two pre-defined lines of text on the Top-level Screen (TLS), here outlined in red.

  Displays zone information and radio user messages. See "Top-level Screen" on page 8 for more details.
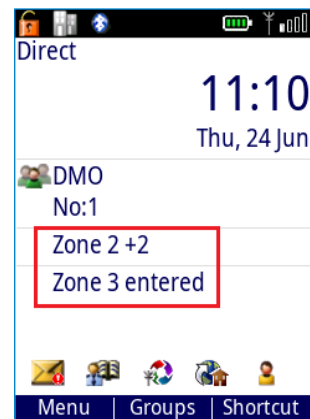
AutoMate can detect several trigger types to initiate an automated action. The trigger types are summarised below:

GPS	GPS data can be used to detect the radio location and speed. Geofences defining specific locations and speed limits can be set as triggers.
Bluetooth® Beacon	Bluetooth beacons can be installed in specific locations or vehicles and used to trigger actions when the radio is within a set distance from the beacon.
Message	Specific SDS or Status Messages received from another radio or Control can be used as a trigger. Alternatively, a predefined SDS or Status message sent from the radio can also be used as a trigger.
TETRA	Several TETRA related Triggers are available including manual change of mode (DMO, TMO, Repeater or Gateway), manual change of Talkgroup and loss of TETRA Network signal.
Sensor	Built in sensors in the radio can be used to detect triggers such as when the radio starts up or shuts down and when the G-force exceeds a pre-set threshold. Alternatively, an external sensor can be used as an input to the IO port of the radio (SCG only) to act as a trigger.

Dependent upon how AutoMate is configured, radio actions are automatically run on detection of a trigger. The different types of actions are listed below:

Notification	Notifications or warnings can be communicated to the user via alert tones and on-screen text.
Message	Predefined SDS or status message can be sent automatically to inform update control, individuals, or groups of radio users.
Location	Radio location data (e.g., co-ordinates and bearings) can be sent to predefined recipients.
Communication	A Change of radio talkgroup or change of Mode (DMO, TMO, Repeater or Gateway) can be actioned.
Softkeys	Existing softkey shortcut functions can be executed automatically.
Input/Output (I/O)	External equipment can be connected to the radio Output (SCG22 only) and controlled via switched relay.

3.0 Using AutoMate

AutoMate uses the concept of Events and Zones to define and instruct how AutoMate behaves for each automation.

3.1 Events

An Event is a one-off occurrence, initiated by a trigger, which results in one or more actions. Events are independent of each other, but actions related to an event can impact or override actions triggered by other events or zones. Examples of triggers and actions are shown below:

Below are a few Event examples:

- The user is alerted by on-screen message and an SDS message is sent to Control when the user crosses a geofence and enter a restricted or dangerous location.
- The radio switches between TMO (Trunked Mode) and DMO (Direct Mode) on detecting loss of network coverage.
- Supervisors are notified by SDS if the vehicle exceeds specified speed limits in a specified area.
- The radio talk group is changed, and the user is notified by on-screen message upon receipt of a pre-defined SDS from control.
- The radio talk group is changed, and the user is notified by on-screen message upon entering a new location or coming in proximity to a Bluetooth beacon.

3.2 Zones

A Zone is a physical or conceptual predefined state that becomes active when entering a zone and inactive when exiting a zone. The entry and exit triggers must be opposites/reversible.

On entering a zone that is active, an entry action may be performed if configured. While remaining in the active zone, repeat actions can be configured if required, repeating a set number of times or continuously. On exiting the active zone, an exit action may be performed if required, see the following illustration showing some examples of entry, exit and repeat actions.
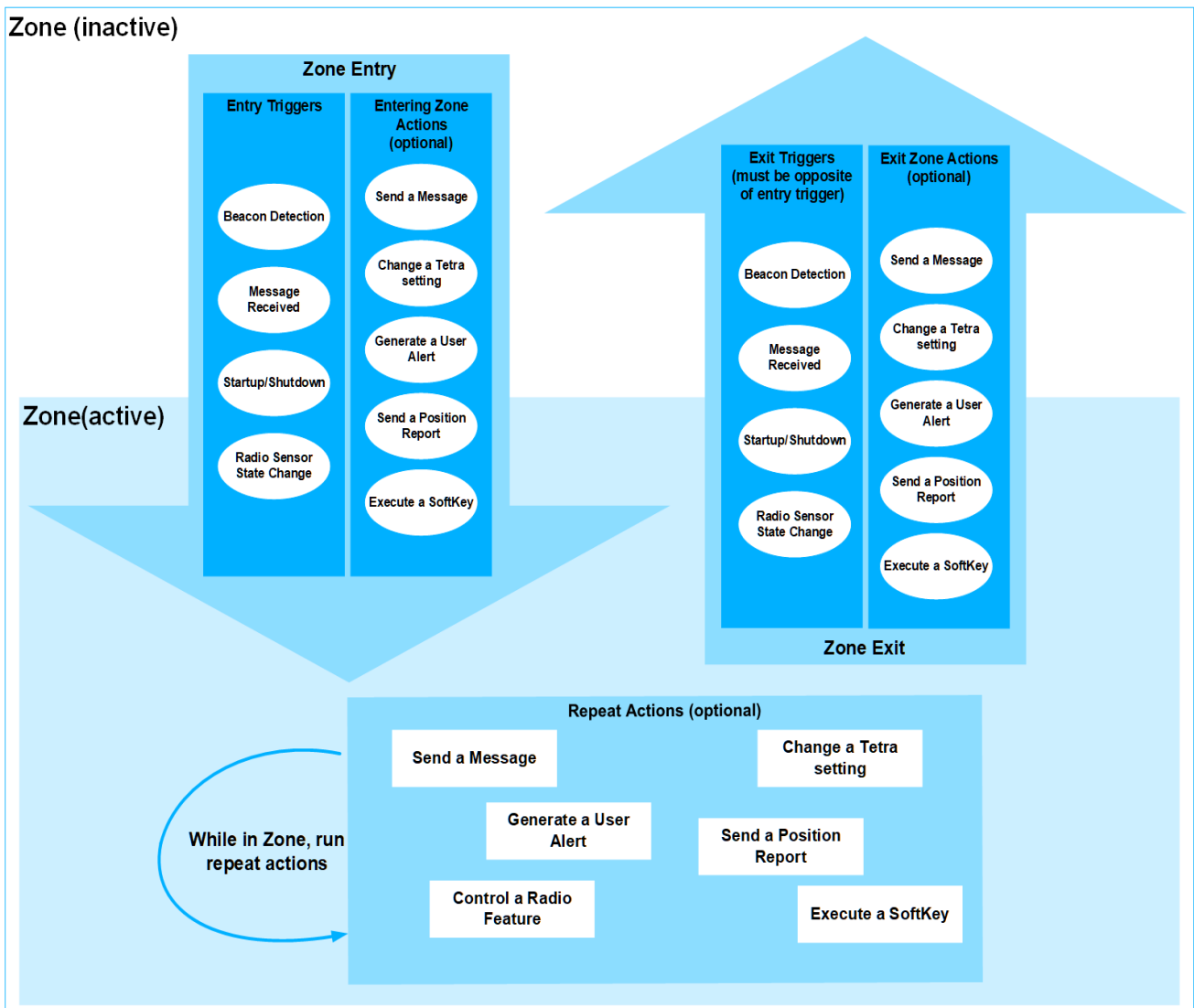
Below are two simple Zone examples:

- The user crosses a geofence as they enter the HQ building, causing AutoMate to switch on the radio Wi-Fi so that important Radio updates can be downloaded and installed. As the user exits the building and crosses the geofence in the opposite direction, radio Wi-Fi is switched off to preserve battery life.

- The user switches the radio on at the start of their shift, causing a notifying SDS message to be sent to Control. When initiating a shutdown at the end of a shift, a 2nd Notification SDS message is sent to Control.

Zones have priority levels, allowing AutoMate to determine which ones should take precedence over other zones. Zone with priority 1 is higher than a zone with priority 10.

A Zone becomes active when entered only if its priority is equal to or higher than the current active zones, and the entry condition is met. If there are other dependent Zones, they must also be entered. See the diagram below:

Zone Inactive

Highest priority among active Zones

Entry condition (trigger) met

Zone Active

Other dependent Zones are also entered
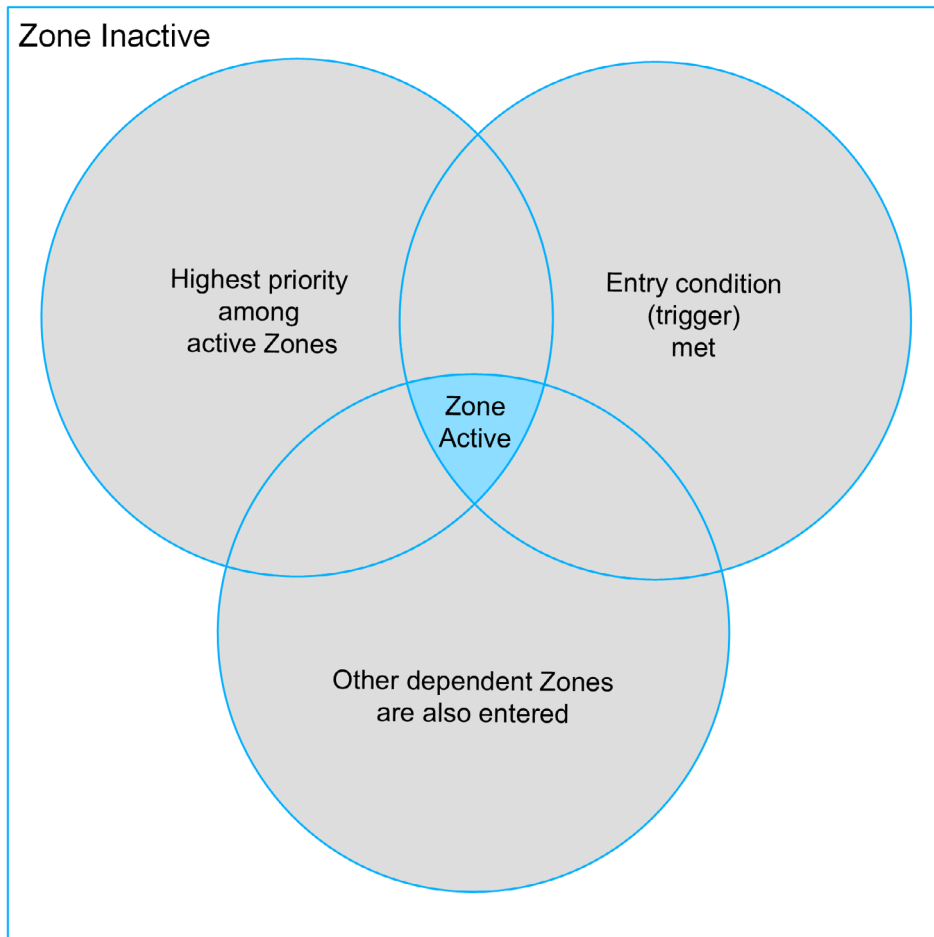
3.3   Overriding Automation

There may be operational situations when it is preferable or necessary for the user to suspend or override the programmed automations. In such cases (and if configured by the administrator) the following functions are available to the user:

- **Holding State**: When activated this function maintains the current state of the radio, preventing any further automated changes (until the function is manually deactivated).

  For example, the user may be aware that they are about to cross over a geofence boundary (which would normally trigger a talkgroup change) whilst in the middle of a conversation on a particular talkgroup. The user can temporarily stop the app from changing talkgroup by activating the Holding State function. Once the conversation is over, the user can deactivate the function, at which time automations would resume for any active zones that are now in force. The Holding State function can be operated by either using a dedicated softkey (see "Softkey Functions" on page 13) or via the App Screen (see "Holding State" on page 10).

  The App also holds state automatically (if configured by the administrator) during outgoing non-emergency voice calls and incoming and outgoing emergency calls to ensure there are no interruptions in critical communication (see "Interaction with the Radio" on page 14).

- **Pinning a Zone**: If the user wants to prolong the actions occurring within a specific zone, for a period whilst they are either outside of the that zone or entering a higher priority zone, or they want to initiate the actions of a zone without entering it, then the user can use the Pinning function to keep or make the pinned zone active. Unpinning the zone reverses this action and allows automations to resume for any active zones that are now in force.

  For example, there is a zone that forces the radio to send location reports to control every two minutes. However, this zone is not currently active but an unforeseen situation arises where, for safety reasons, it is critical for control to monitor the user's location at this frequency. The user can pin the specific zone to ensure that the zone is activated, resulting in the repeated action of sending location reports, to the exclusion of other zones.

  The Pinning function can be activated on the App Screen (see "Pinning a Zone" on page 11).

> ✏️ **Note:** If a specific zone is pinned, then it remains active at the exclusion of all others.

- **Exiting a Zone**: In situations where it is necessary to exit or deactivate a specific zone early, the user can manually deactivate (or force the exit of) a zone using the Exit Zone function. When this is used, any associated exiting actions will also be executed.

  For example, if a radio is in an active zone where DMO is selected instead of TMO, but the user needs to make a TMO call and coverage is available, then the user can force the exit of the zone.

  The Exit Zone function can be activated on the App Screen (see "Exiting a Zone" on page 12).

3.4   Notifications

AutoMate information and notifications can be conveyed to the user by text on the Top-level Screen (TLS), via Message boxes that can appear on any screen and/or audible alerts.

3.4.1   Top-level Screen

Two types of information can be displayed on the Top-level screen (TLS). Each type uses 1 of 2 available lines on the TLS (here outlined in red). The administrator will inform the user which line is used for which type of information.

Zone Information: One text line can be used to display the following information related to Zones:

- **Active Zone** - The latest active zone name is displayed.

  Any other active zone is indicated by a "+n" where n represents the number of additional active zones. A list of the active zones is accessible to view in the AutoMate app screen.

- **Zone Held** - The text line shows "Zones Held(n)" where n represents the number of zones currently held in an active status.

  A list of zones held active is accessible in the AutoMate app screen.

- **Pinned Zone** - The text line shows the zone name preceded by a star when a zone is pinned.

Radio User Message: The second text line can be used to display text to the user as a specified action tied to an event or zone.
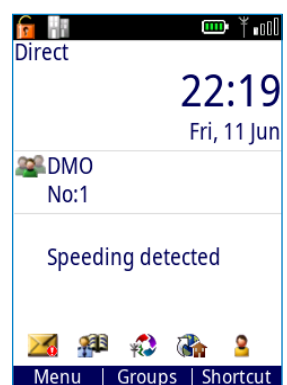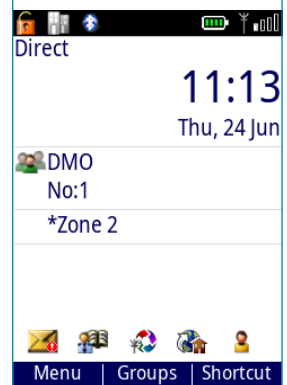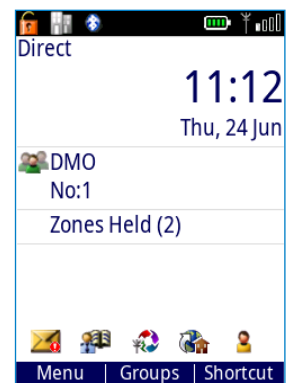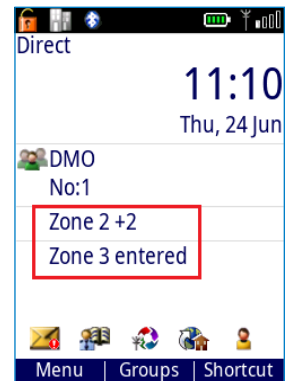
3.4.2 Message Box

A message box is used to display important messages that need user attention. Messages boxes can only be generated as an action tied to an event or zone and will appear on the current screen in use. Depending upon configuration, the message box may only be displayed for a limited time, or displayed continuously.

When a message box is displayed continuously, the user can dismiss the message box by using the left context key to select **OK**.
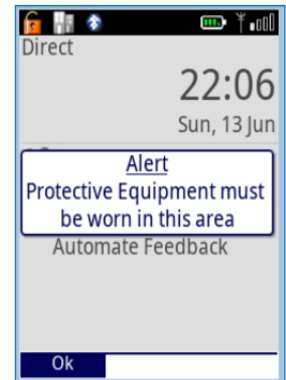
3.4.3 Audible Alerts

AutoMate can sound audible tones to alert the user if an automation has occurred or if an important message needs user attention.

The alert tone may be a short tone of several seconds or continuous, in which case the user can press any radio button to stop the tone.

4.0 AutoMate App Screen

The AutoMate app screen can be opened by doing the following:

1. Press **Menu** > **Applications** to access the list of applications installed on the radio.

2. Scroll and select **AutoMate** from the list.

3. Alternatively, and if configured by the Administrator, a softkey may be used to access the AutoMate App Screen from any screen location. See "Softkey Functions" on page 13 for more details.

When opened, the AutoMate app screen shows the recent/current status of events and zones.

The screen displays **{none}** under the respective header if no events have been triggered and/or no zones are active.

> ✎ **Note:** The **Last Event** header only shows if at least one event is configured, and the **Active Zones** header only shows if at least one zone is configured.
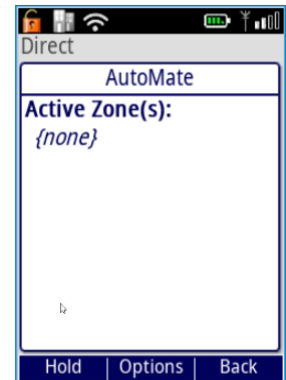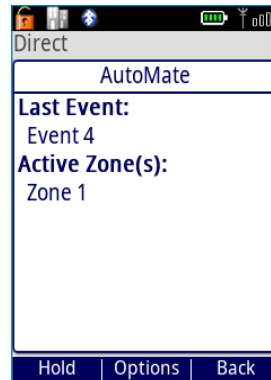
Navigation around the AutoMate app screen and its options menus uses the radio's context keys and the up/down, left/right navigation keys.

The three Context keys of the radio are used for specific AutoMate actions as follows:

- Left Context Key – **Hold** – allows the user to hold the state of the radio, suspending future automation.

  The context key function is changed to **Release** when the radio is in held mode and to Unpin when a zone is currently pinned.

- Centre Context Key - **Options** – The Options menu is displayed.

- Right Context Key – **Back** – The user can return to the applications screen.

4.1   Holding State

The holding state function can be used to hold the current radio state, and suspending future automation by ignoring any future triggers and subsequent Event or Zone actions. See "Overriding Automation" on page 7 for more details.

To maintain the current radio state and temporarily disable all future automation, do the following.

1. Access the AutoMate app Screen.

2. Press **Hold**.

   The display now confirms that the zones are held.

3. Alternatively, and if configured by the Administrator, a softkey may be used to activate the Hold State function from any screen location. See "Softkey Functions" on page 13 for more details.

To release the Held state, do the following:

1. Access the AutoMate app Screen.

2. Press **Release**.

3. Alternatively, and if configured by the Administrator, a softkey may be used to release the Hold State function from any screen location. See "Softkey Functions" on page 13 for more details.

4.2 Options Menu

The AutoMate Options menu lists some additional actions available to the user:

- **Pin Zone** - Opens a new window with a list of all the zones that can be pinned.

  The user can force a zone to become active by pinning the highlighted zone and pressing the left context key, or the user can return to the AutoMate app screen by pressing the right context key.

- **Exit Zone** – The user can force a zone to become inactive before the exit trigger is detected. This function is only visible or available when there is at least one active zone, that is allowed to be exited manually.

- **About AutoMate** - Gives the user information about the build and part number of the app.
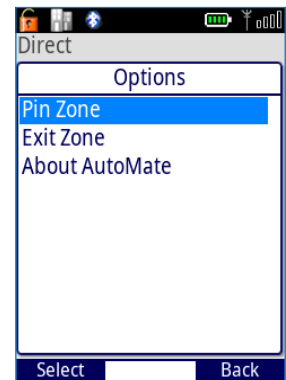
When pinning or exiting zones, the user is effectively overriding or suspending the automation. To open the AutoMate Options menu, access the AutoMate app Screen and press Options.

4.2.1 Pinning a Zone

Pinning a zone keeps that zone active, at the exclusion of all others, ignoring any zone changing triggers.

To pin a zone, do the following:

1. Access the AutoMate app Screen.
2. Press Options to access the Options menu.
3. Scroll and select Pin Zone from the list.

4. Scroll and select the zone to pin from the list.
   Confirmation of the pinned zone is displayed.
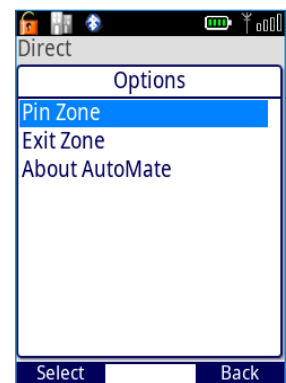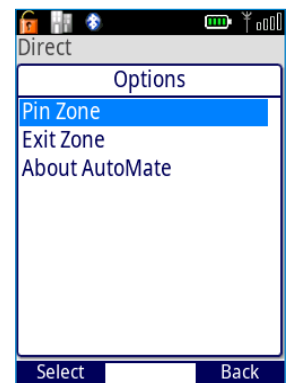
4.2.2 Unpin a Zone

To unpin a zone, do the following:

1. Access the AutoMate app Screen.
2. Press **Unpin**.
   Unpin replaces the **Hold** Context key when a Zone is pinned.

4.2.3 Exiting a Zone

The user can exit (deactivate) an active zone (if the configuration allows it to be exited manually), even if a deactivating trigger has not occurred. Please note that when manually exiting a zone, the normal exiting actions will also occur.

To exit a zone, do the following:

1. Access the AutoMate app Screen.
2. Press **Options** to access the app menu.
3. Scroll and select **Exit Zone** from the list.
4. Scroll and **Select** the zone to exit, from the list.
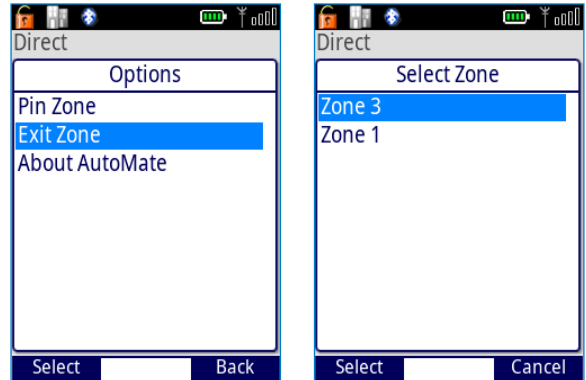
4.2.4 Checking the App Version
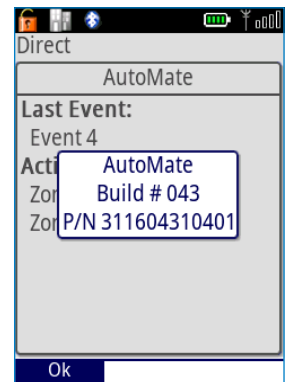
To check the AutoMate app version, do the following:

1. Access the AutoMate app Screen.
2. Press **Options** to access the app menu.
3. Scroll and select **About AutoMate** from the list.
   A message box with the build and part number is displayed.
4. Press **OK** to clear the message box.

5.0 Softkey Functions

The following two softkeys functions are available that allow faster manual interaction with the AutoMate App.

- Redirect the user to the AutoMate app screen.
- Toggle (activate or deactivate) the Hold State function.

These actions can be mapped to any softkey. The Radio Administrator will inform the user if these functions are being used and which softkey is mapped to which function.

6.0 Interaction with the Radio

AutoMate interacts with the radio to perform the type of Automations described in this manual. Consequently, the user should be aware of the following:

- AutoMate can pause automation during outgoing non-emergency voice calls, and incoming/outgoing emergency calls (if configured by the Radio Administrator). This function allows automation to be resumed once the call is completed and serves to ensure there is no interruption to critical voice communications when AutoMate is active.

- If configured by the Radio Administrator, AutoMate can control the Bluetooth module and may automatically turn Bluetooth On if the user has toggled it Off from the radio menu.

- Alert sounds that the app plays may cancel out or mask other alert sounds if they happen at the same time.

- Message boxes may appear in front of other parts of the radio UI that the user is interacting with.

- Radio shutdown will be delayed by 5 seconds if any actions are configured to take place following a System Shutdown event trigger.

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