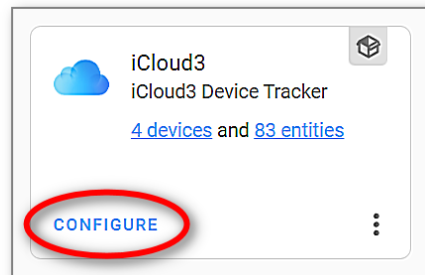


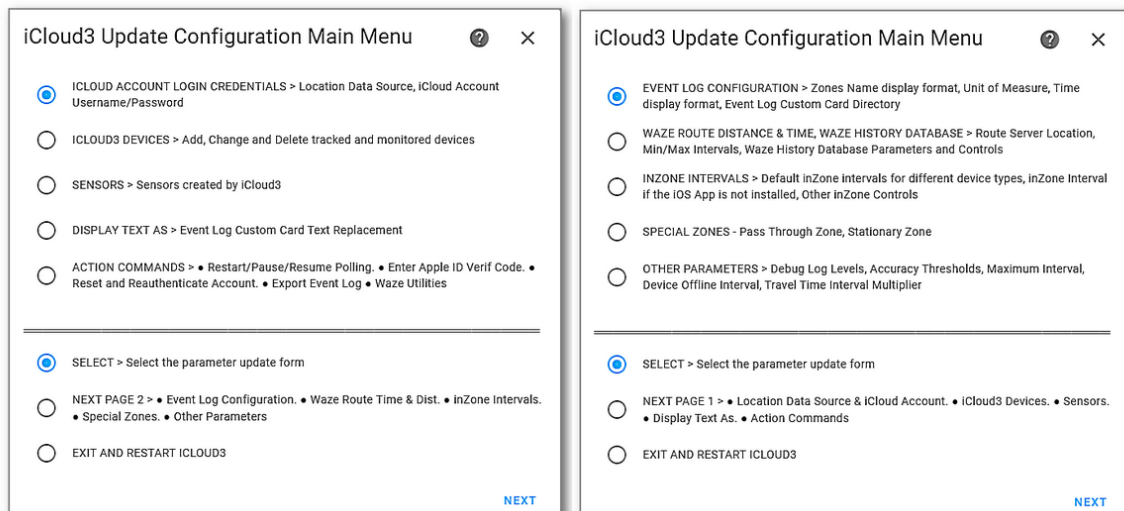
# Configuration Parameters

Configuration parameters for HA components are set up on the *HA Settings > Devices & Settings > Integrations > iCloud3 Configuration* screen previously discussed.

1. Select **HA Settings > Devices & Services > Integrations**
2. Select **iCloud3 > Configure**



3. Select **Configure** to open the menu screen on the left below.



The parameters are grouped into categories and updated on various screens introduced in the *Configuring iCloud3 with The Configurator* chapter earlier.

- **iCloud Account & Location Data Source** - Enter your iCloud account username/password and indicate where the location data comes from.
- **iCloud3 Devices** - Set up and configure the devices you want to track or monitor.
- **Sensors** - Over 25 sensors can be updated with device information, more if you are tracking from multiple zones. This screen lets you select the sensors you want to use.
- **Display Text As** - The Event Log can show information related to a device that you may want to hide (email addresses, phone numbers, etc.). This screen lets you specify a *display\_as* text that will replace the real text ([gary@email.com](mailto:gary@email.com) instead of the real email address, [garyinfl987@aol.com](mailto:garyinfl987@aol.com)).
- **Action Commands** - Commands that let you control iCloud3 operations (Restart, Pause Tracking, Resume or Restart Tracking, Enter Apple Verification Code, Reset iCloud Interface, etc.). These commands are also found on the Event Log custom card.

- **Event Log Configuration** - Specifies how information should be displayed on the Event Log (zone names, times, unit of measure)
- **Waze Route Distance & Time, Waze History Database** - Waze can be used to provide travel time and distance information to a tracked zone. The results can also be saved in a database. This screen is used to configure how Waze should operate.
- **inZone Intervals** - Different types of devices can have different polling intervals (time between location requests) when they are in a zone. You may want a Watch to have a short interval since it can not use the iOS App for zone enter/exit triggers and an iPhone to have a long interval since it can use the iOS App. The default interval times for the different devices are set up on this screen.
- **Special Zones** - There are two types of special zones that are set up on this screen.
  - *Pass Through Zone* - A Zone Enter delay in case you are just passing through a zone and the iOS App issues a Zone Enter Trigger.
  - *Stationary Zone* - A special zone created by iCloud3 when you are at the same location for an extended period of time (friend's house, doctors office, work, store, etc).
- **Other parameters** - General parameters that do not fall into the other categories that you will probably never change.

## iCloud Account Login Credentials

This screen is used to enter the iCloud account username & password parameters. It was described in was discussed in the *Installing and Configuring iCloud3 - Step #5* chapter.

iCloud Account Login Credentials
?
X

LOCATION DATA SOURCE  
ICLOUD & IOSAPP - iCloud account and iOS App are used for location data

The services used for location and other data - the iCloud account, the iOS App or both

APPLE ID  
gc.....21@gm.....om

The email address used to sign in to the iCloud Account

PASSWORD  
Gc.....17

The Password of the iCloud Account

☐ LOGIN > Log into the iCloud Account
☐ ENTER VERIFICATION CODE - Enter the 6-digit Apple Verification Code
☐ SHOW/HIDE USERNAME/PASSWORD - Show or hide the Username and Password
☒ SAVE > Update Configuration File • Return to the menu screen
☐ CANCEL > Discard changes • Return to the Main Menu

SUBMIT

Notes:

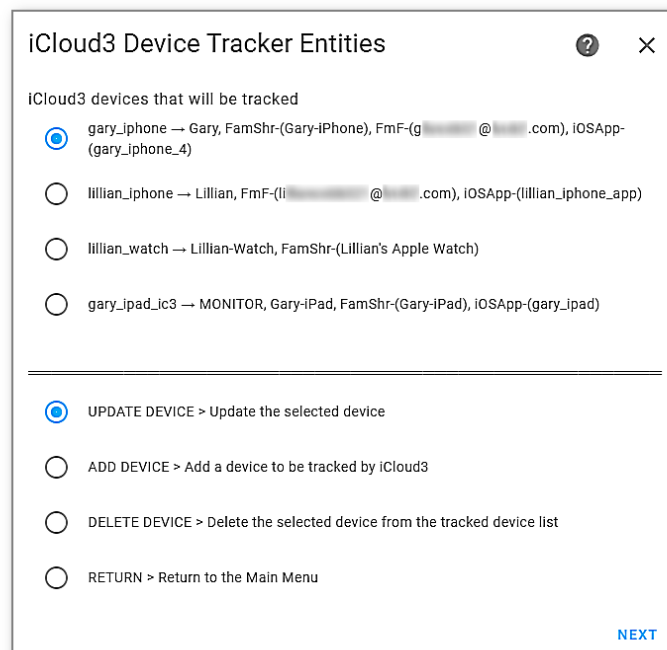
- **Location Data Source** - Normally, both the iCloud account and the iOS App provides location data. If, however, you are not using the iOS App on any device, and have no plans to do so, set the *Location Data Source* to *iCloud data only*.
- **Password** - This is stored in the configuration file in an encrypted format.
- **Username & Password** - These fields are obscured on this screen. Select *Show/Hide username/password* to and select *Submit* to display them.

## Update iCloud3 Devices

This screen is used to:

- Add a new device (iPhone, iPad, etc) to be tracked
- Select a device to be updated
- Delete a device from the iCloud3 configuration, it's device\_tracker entity and all sensor entities associated with the device.

To stop a device from being tracked without deleting it, set it to an *Inactive* status on the *Update* screen. It's parameters are kept and it's device\_tracker and sensor entities are not created.



## Update Tracked iCloud3 Device

This screen is used to:

- Update the device's parameters.
- Select the iCloud account Family Sharing and Find-my-Friends device providing location information.
- Select the iOS App device\_tracker entity that will be monitored.
- Select the picture image that is displayed on the *device\_tracker* entity and *sensor*.  
[devicename]\_badge entity.\_

- Select the zones to be tracked from.

### Update Tracked iCloud3 Device

ICLOUD3 DEVICE NAME\*  
gary\_iphone

iCloud3 device\_tracker entity id

FRIENDLY NAME\*  
Gary

Friendly Name of the device - Used in the device\_tracker and s

DEVICE TYPE  
iPhone

Type of device - iPhone, iPad, Watch, etc.

TRACKING MODE  
Track - Request Location and track the device

Normal location tracking, Monitor the location, or Inactive (not

FAMILY SHARING LIST DEVICE  
Gary-iPhone > iPhone 14 Pro (iPhone15,2)

Device in the iCloud Acct Family Sharing List that will be track

FIND-MY-FRIENDS DEVICE  
g @ .com

Device in the FindMy Devices list that will be tracked

IOS APP DEVICE  
device\_tracker.gary\_iphone\_4 > Gary-iPhone (iPhone15,2)

IOS App mobile\_app device entity that will be monitored

PICTURE  
gary.jpg → www/icloud3/gary.jpg

Display a picture of the person associated with the device (jpg/png file in the /www directory)

INZONE INTERVAL \*  
hh\* mm\* ss\*  
0 : 30 : 00

Location request/Poling interval used when the device is in a zone (initialized using the device type and if the iOS App is installed on the device)

TRACK-FROM-ZONES  
Warehouse, Home

☒ SAVE > Update Configuration File • Return to the menu screen

☐ CANCEL > Discard changes • Return to the Main Menu

SUBMIT

Notes:

- **Picture** - Image files (png, jpg and jpeg) in the *config/www/* and *config/www/icloud3/* (or *config/www/[your\_event\_log\_card\_directory]/*) directories are listed.
- **Tracking Mode** - specifies how the device should be handled.
  - Track - Full tracking, iCloud3 requests it's location.
  - Monitor - Report the devices location or battery status using data provided when a tracked device is updated
  - Inactive - Not tracked or monitored.

## Sensors

This screen is used to:

- Select the sensors that will be created for a device.
- Select the additional sensors that will be created for devices that are being tracked from other zones.

- Select the sensors that are created for a monitored device.

Device and Tracking Sensors created by iCloud3

MONITORED DEVICE SENSORS - Select the type of sensors to create for a Monitored Device

☒ badge > Badge sensor > A badge showing the Zone Name or distance from the Home zone. Attributes include location related information
 ☒ battery, battery\_status > Create Battery (65%) and Battery Status (Charging, Low, etc) sensors
 ☐ Location related sensors > Name, zone\_name, zone\_id, zone\_name, zone\_id, travel\_time\_min, last\_located, last

DEVICE SENSORS - Device status and

☒ name > iCloud3 Device Name
 ☒ badge > A badge showing the Zone
 ☒ battery, battery\_status > Create Battery (65%) and Battery Status (Charging, Low, etc) sensors
 ☒ info > An information message containing device location updates, data accuracy

LOCATION UPDATE SENSORS - Device

☒ interval > Time between location requests
 ☒ last\_update > Last time the location was updated
 ☒ next\_update > Next time the location will be updated
 ☒ last\_located > Last time the location was located

TIME SENSORS - Device tracking timers

☒ travel\_time > Waze Travel time to Home or closest Track-from-Zone zone
 ☒ travel\_time\_min > Waze Travel time to Home or closest Track-from-Zone zone in minutes

DISTANCE SENSORS - Device tracking distances

☒ zone\_distance > Distance to the Home or closest Track-from-Zone zone
 ☒ dir\_of\_travel > Direction of Travel for the Home zone or closest Track-from-Zone zone (Towards, AwayFrom, inZone, etc)
 ☒ travel\_distance > Distance moved from the last location

TRACK FROM MULTIPLE ZONE SENSORS - Device tracking from multiple zones (not needed for tracking only)

☒ zone\_info[zone] > Summary sensor for zone
 ☒ travel\_time[zone] > Waze Travel time to zone
 ☒ travel\_time\_min[zone] > Waze Travel time to zone in minutes
 ☒ distance[zone] > Distance from the zone
 ☒ dir\_of\_travel[zone] > Direction of Travel for the zone (Towards, AwayFrom, inZone, etc)

OTHER TRACKING SENSORS - Not needed for tracking

☒ trigger > Last action that triggered the sensor
 ☒ waze\_distance > Waze distance from the zone
 ☒ calc\_distance > Calculated straight line distance

ZONE SENSORS - Device zone status and information

☐ zone\_fname > HA Zone entity Friendly Name (HA Config > Areas & Zones > Zones > Name)
 ☐ zone > HA Zone entity\_id ('the\_shores')
 ☒ zone\_name > Reformat the Zone entity\_id, capitalize and remove '\_'s ('the\_shores' → 'TheShores')
 ☐ zone\_datetime > The time the Device entered the Zone
 ☐ last\_zone[...] > Create the same sensors for the device's last HA Zone

OTHER SENSORS - Sensors not in the above areas

☐ gps\_accuracy > GPS accuracy of the last location coordinates
 ☐ vertical\_accuracy > Vertical (Elevation) Accuracy
 ☐ altitude > Altitude/Elevation

☒ SAVE > Update Configuration File • Return to the menu screen
 ☐ CANCEL > Discard changes • Return to the Main Menu

SUBMIT

## Display Text-as

There may be text fields (account numbers, email addresses, etc) that should be considered private and not displayed on the Event Log or in the report that can be exported.

This screen is used to:

- Specify the displayed text for text that should be hidden.

Event Log 'Display Text As'

Text Replacement Fields

☒ gc: @.com > gary@email.com
 ☐ li: @.com > lillian@email.com
 ☐ #3
 ☐ #4
 ☐ #5

---

☐ NEXT PAGE > #6, #7, #8, #9, #10
 ☒ SELECT > Update selected 'Display Text As' field
 ☐ SAVE > Update Configuration File • Return to the menu screen
 ☐ CANCEL > Discard changes • Return to the Main Menu

SUBMIT

Update Event Log 'Display Text As' Value

ORIGINAL TEXT

gc: @.com

Text to be replaced (example: gary\_real\_email@gmail.com)

DISPLAYED TEXT

gary@email.com

Text to be displayed (display: gary@email.com)

---

☐ CLEAR > Remove 'Display Text As' entry
 ☒ SAVE > Update Configuration File • Return to the menu screen
 ☐ CANCEL > Discard changes • Return to the Main Menu

SUBMIT

Notes:

- Ten display\_as text fields are available.

## Action Commands

Action commands can be selected on the *Event Log > Actions* drop down list that control iCloud3's operations. Some of those commands can be also selected on this screen. This includes:

- Restart iCloud3
- Pause and Resume tracking
- Reset and Reauthenticate the iCloud interface to generate a new 6-digit authentication code
- Export the Event Log
- Waze History Database Maintenance

iCloud3 Action Commands

ICLOUD3 CONTROL ACTIONS

RESTART > Restart iCloud3

PAUSE > Pause polling on all devices

RESUME > Resume Polling on all devices, Refresh all locations

ICLOUD ACCOUNT ACTIONS

ENTER APPLE ID VERIFICATION CODE > Enter the Apple 6-digit Verification ...

RESET AND REAUTHENTICATE ACCOUNT > Request New Auth Code

OTHER COMMANDS

EXPORT EVENT LOG > Export Event Log data

WAZE HIST DATABASE > Recalc time/distance data at midnight

WAZE HIST MAP TRACK > Load route locations for map display

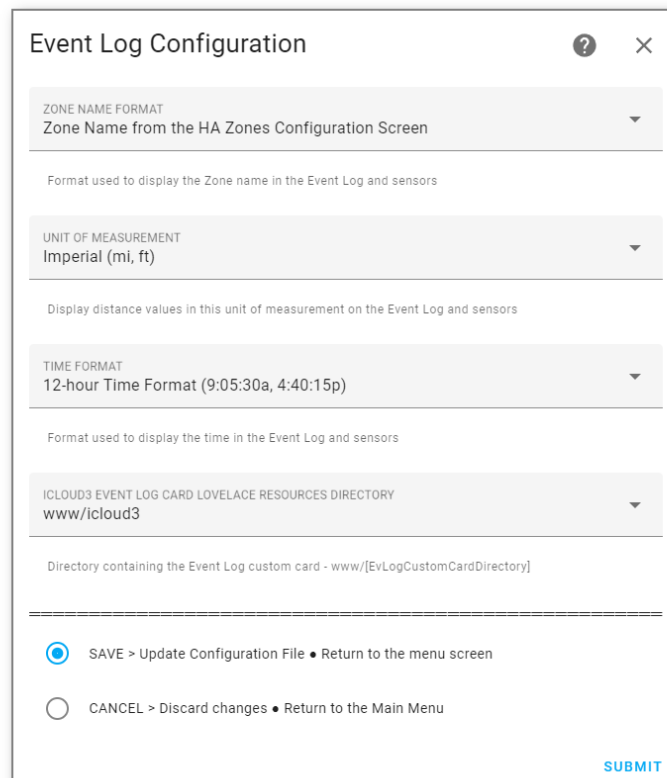
MAIN MENU > Return to the Main Menu

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## Event Log Configuration

The *Event Log* shows the activity associated with tracking a device. This is used to:

- Configure various display fields (time, distance).
- Specify how zone names should be displayed.
- Specify the directory containing the *icloud3-event-log-card.js* file.

A screenshot of the 'Event Log Configuration' dialog box. It has a title bar with a question mark icon and a close button. The dialog contains four configuration sections, each with a dropdown menu and a descriptive text line below it. The first section is 'ZONE NAME FORMAT' with the value 'Zone Name from the HA Zones Configuration Screen'. The second is 'UNIT OF MEASUREMENT' with the value 'Imperial (mi, ft)'. The third is 'TIME FORMAT' with the value '12-hour Time Format (9:05:30a, 4:40:15p)'. The fourth is 'ICLOUD3 EVENT LOG CARD LOVELACE RESOURCES DIRECTORY' with the value 'www/icloud3'. At the bottom, there are two radio buttons: 'SAVE > Update Configuration File • Return to the menu screen' (which is selected) and 'CANCEL > Discard changes • Return to the Main Menu'. A blue 'SUBMIT' button is located in the bottom right corner.

Event Log Configuration

ZONE NAME FORMAT  
Zone Name from the HA Zones Configuration Screen

Format used to display the Zone name in the Event Log and sensors

UNIT OF MEASUREMENT  
Imperial (mi, ft)

Display distance values in this unit of measurement on the Event Log and sensors

TIME FORMAT  
12-hour Time Format (9:05:30a, 4:40:15p)

Format used to display the time in the Event Log and sensors

ICLOUD3 EVENT LOG CARD LOVELACE RESOURCES DIRECTORY  
www/icloud3

Directory containing the Event Log custom card - www/[EvLogCustomCardDirectory]

☒ SAVE > Update Configuration File • Return to the menu screen

☐ CANCEL > Discard changes • Return to the Main Menu

SUBMIT

Notes:

- **iCloud Event Log Card Lovelace Resources Directory**- The Event Log Card File (*icloud3-event-log-card.js*) file is stored in this directory. The *www/icloud3* directory is created and the the *.js* file is copied into it when iCloud3 is installed. If you want to install the Event Log Card in another directory, change the name here and update the Lovelace Resources setup screen with that directory.

---

## Waze Route Distance & Time, Waze History Database

Waze is used to provide the driving distance and travel time between the current location and the Home and other tracked from zones. The next location update time is determined with this information.

The distance and time returned from Waze is stored in the *Waze History Database* using the gps position with 4-decimal places of accuracy (11m/33ft). Over time, the database will contain the distance and time for many '11m blocks' along the routes normally driven. Accessing the local database is much more efficient than an internet request to Waze, resulting in faster updates and fewer delays when the Waze Route servers are busy.

This screen is used to:

- Specify the Waze server to use in your location and how the distance and time should be determined.
- Specify if the Waze History Database should be used and parameters defining it's operation.

The image shows two overlapping screenshots of Waze configuration screens. The left screen is titled "Waze - Route Service Travel Time/Distance" and contains a toggle for "USE WAZE ROUTE SERVICE" (checked), a dropdown for "ROUTE SERVER LOCATION" (United States), input fields for "WAZE MINIMUM DISTANCE" (1) and "WAZE MAXIMUM DISTANCE" (1000), a checkbox for "USE REAL TIME DATA > Consider Traffic delays Travel Time", and radio buttons for "NEXT PAGE > Waze History Database param" (selected) and "CANCEL > Discard changes • Return to the Main Menu". The right screen is titled "Waze - History Database" and contains a toggle for "WAZE HISTORY - Save Waze Route Info to the Waze History Database" (checked), an input field for "WAZE HISTORY DB MAXIMUM DISTANCE\*" (20 km), a dropdown for "WAZE LOCATION MAP DISPLAY" (North-South - You generally travel in North-to-South direction), and radio buttons for "SAVE > Update Configuration File • Return to the menu screen" (selected) and "CANCEL > Discard changes • Return to the Main Menu". A "SUBMIT" button is at the bottom right of the right screen.

Notes:

- **Waze Location Map Display** - This is described in the *Other Features* chapter.

---

## inZone Intervals

The *inZone Interval* is the time between location requests when a device is in a zone. When a device is added, an *inZone Interval* is assigned based on it's type (iPhone, iPad, Watch, etc.).

- A longer interval (i.e., 2-hours) helps preserve battery life.
- A shorter interval (15-minutes) causes the battery to drain faster as it responds to a 'where are you' location request from iCloud Location servers.

This screen is used to set up the default values assigned to a device when it is added.



inZone Parameters and Default Intervals

Defines the default values for the location request interval assigned to a device when it is added to iCloud3. It can be changed for each device on the Update Device form

IPHONE \*

hh\*

mm\*

ss\*

2 : 00 : 00

iPhone & iPod default inzone interval

IPAD \*

hh\*

mm\*

ss\*

2 : 00 : 00

IPad default inzone interval

APPLE WATCH \*

hh\*

mm\*

ss\*

0 : 15 : 00

Apple Watch default inzone interval

AIRPODS \*

hh\*

mm\*

ss\*

0 : 15 : 00

AirPods default inzone interval

IOS APP IS NOT INSTALLED \*

hh\*

mm\*

ss\*

0 : 15 : 00

This overrides the device type default inzone interval if the iOS App is not used for location monitoring and zone enter/exit triggers. You should assign a short interval (15-minutes) to avoid long delays triggering zone exits.

OTHER DEVICE TYPE \*

hh\*

mm\*

ss\*

2 : 00 : 00

Unspecified device type inzone interval

Change Device's Location to the Zone's Center when in a Zone

☐

Discard Location Updates with Poor GPS Accuracy when in a Zone

☒

☒ SAVE > Update Configuration File • Return to the menu screen

☐ CANCEL > Discard changes • Return to the Main Menu

SUBMIT

Notes:

- Devices that do not have the iOS App installed will not receive an Exit Zone trigger. A shorter interval (15-minutes) helps identify that the device has left the zone.

## Special Zones

### Pass Through Zone

There are times when you may be driving through a zone on your way to another location. However, the iOS App does not know this and issues a *Zone Enter* trigger when you enter the zone you are actually driving through.

The *Pass Through Zone* delay time prevents the *Enter Zone trigger* from being processed immediately. The Zone Enter trigger will be process if you are still in the zone when the delay timer expires. This only applies to non-tracked from zones, tracked-from zones (Home) are processed immediately.

## Stationary Zone

A Stationary Zone is a zone that is created when the device has been in the same location for a period of time (at a mall, doctor's office, restaurant, friend's house, etc). The purpose of this zone is to reduce location requests when the device has not moved.

Special Zones - Pass Through, Stationary ? X

PASS THROUGH ZONE

You may be driving through a non-tracked zone but not stopping at the zone. The iOS App issues a Enter Zone trigger when the device enters the zone and changes the device\_tracker entity state to the Zone. iCloud3 does not process the Enter Zone trigger until the delay time has passed. This prevents processing a Zone Enter trigger that is immediately followed by a Zone Exit trigger and from cycling the iCloud3 device\_tracker and zone sensors from Away (not\_home) to the Zone and then back to Away

ENTER ZONE DELAY TIME \*

hh\* mm\* ss\*  
0 : 01 : 00

STATIONARY ZONE

A Stationary Zone is created if the device remains in the same doctors office, etc.) for an extended period of time.

FRIENDLY NAME\*

[name]StatZone

Friendly Name displayed in sensors and on the Event Log. Use name ([name]StatZone' -> 'GarStatZone)

NO MOVEMENT TIME \*

hh\* mm\* ss\*  
0 : 08 : 00

Time the device is in the same location before it is placed into

INZONE INTERVAL \*

hh\* mm\* ss\*  
0 : 30 : 00

Time interval between location requests when the device is in a Stationary Zone

STATIONARY ZONE BASE LOCATION

The Stationary Zone is moved to it's 'Base Location' when it is not used by the device. This prevents the iOS App from moving the device into the Stationary Zone when it shouldn't and helps prevent it from overlapping other zones

BASE LOCATION NORTH-SOUTH OFFSET\*

2

Distance (±km) north or south of the Home Zone (or it's GPS Latitude)

BASE LOCATION EAST/WEST OFFSET\*

0

Distance (±km) east or west of the Home Zone (or it's GPS Longitude)

SAVE > Update Configuration File • Return to the menu screen

CANCEL > Discard changes • Return to the Main Menu

SUBMIT

## Other Parameters

This screen is used to configure other parameters that do not belong on the previous screens.

Miscellaneous Parameters

LOG LEVEL

Rawdata - Log raw data received from iCloud Location Servers

Specifies the type of messages that are added to the HA log file.

GPS ACCURACY THRESHOLD\*

125

GPS ACCURACY THRESHOLD > Locations with GPS Accuracy less than this value will be requested

OLD LOCATION THRESHOLD \*

hh\* mm\* ss\*

0 : 03 : 00

Locations older than this value will be discarded, a new location will be requested

MAXIMUM INTERVAL \*

hh\* mm\* ss\*

4 : 00 : 00

The maximum interval between location update requests

TRACK-FROM-ZONE - DISPLAY CLOSER OF HOME/TFZ INFO

100

The closer of the Home zone or the Track-From zone info is displayed in the Device's sensor fields when the Device is tracked

TRACK-FROM-ZONE - ALWAYS DISPLAY TFZ INFO DISTANCE\*

8

Km

If the distance to the Track-From-Zone zone is less than this distance, the Device's sensors display the TFZ travel time, distance, and interval instead of the Home zone

DEVICE OFFLINE INTERVAL \*

hh\* mm\* ss\*

0 : 30 : 00

The interval between locate retry requests when the device is offline (Airplane mode, dead cell area, powered off, etc)

TRAVEL TIME INTERVAL MULTIPLIER\*

0.6

The next location request time is determined by multiplying the Waze travel time by this value, resulting in shorter intervals as the device approaches a tracked zone and longer intervals when further away

☒ SAVE > Update Configuration File • Return to the menu screen
 ☐ CANCEL > Discard changes • Return to the Main Menu

SUBMIT

## Notes:

- Log Level** - Several levels of logging are available to help provide information when trying to identify a problem. Records are added to the HA Log file (*home-assistant.log*). This is explained further in the *Other Features* chapter.
  - Debug** - Basic information.
  - RawData** - Entries related to setting up zones and devices and the response received from iCloud when requesting a location.