VNC Automotive
Connectivity that moves

Getting Started Guide

Cobalt Cube®

Contents

1 Cobalt Cube overview

The instructions detailed in this document will allow you to set up and evaluate the Cobalt Cube® hardware, as long as it has been flashed with a VNC Automotive production system image.

1.1 Cobalt Cube ports

The Cobalt Cube has a series of labelled ports. This guide will refer to some of them, this section details their purpose.

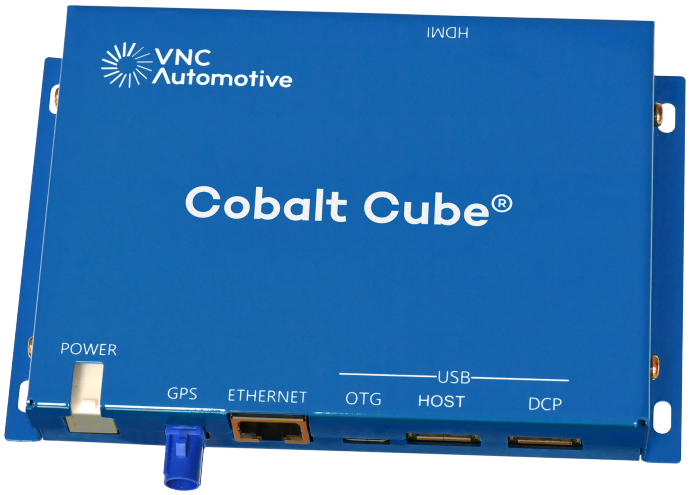


Figure 1: Cobalt Cube

- HDMI: HDMI out port, to connect the Cobalt Cube directly to a screen over HDMI. This can be used for troubleshooting the Android Auto connection (see the Cobalt Cube FAQs page).
- POWER: 12V power input.
- GPS: port to connect a GPS antenna to improve GPS positioning. It is not required for any use case covered in this document.
- ETHERNET: port to connect an RJ45 cable, to allow an Ethernet connection to the network.
- OTG: USB-C port. Provides 5V power input to the device. USB OTG connectivity to 3rd party devices is supported.
- HOST: USB host Standard-A port. Can be used to connect USB thumb drives or USB peripherals (e.g., a mouse) to the Cobalt Cube.
- DCP: USB Standard-A port for DC output (5V).

1.2 Cobalt Cube basic hardware setup

1. For use cases which require network connectivity: connect one end of the Ethernet cable to the ETHERNET port on the Cobalt Cube, and the other end to a free port on the network router/switch.
2. Connect a USB-A to USB-C cable to the Cobalt Cube. The USB-A end should plug into the Android Auto port on the vehicle and the USB-C end should be connected to the Cobalt Cube.
3. Plug the 12V power block into the POWER port of the Cobalt Cube.

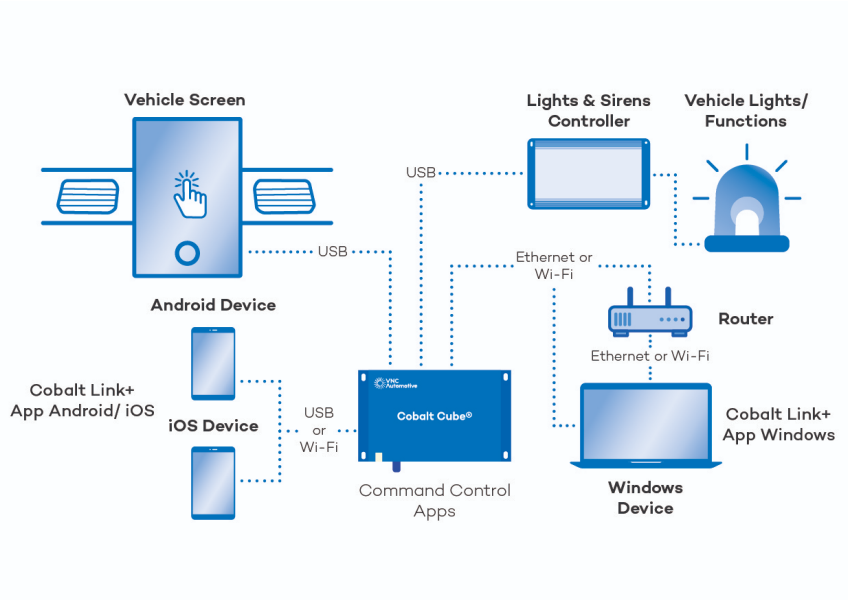


Figure 2: Possible hardware layout

1.3 Cobalt Cube power connector

Item	Part Number	Supplier Link
Power Connector	172167-1	`https://uk.farnell.com/amp-te-connectivity/172167-1/plug-housing-4way/dp/1248283`
Metal Contacts (x3)	170362-1	`https://uk.farnell.com/amp-te-connectivity/170362-1/contact-socket-22-18-awg-crimp/dp/1772741`

The image below shows the rear view of the power connector included with the Cobalt Cube.

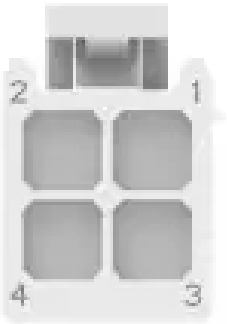


Figure 3: Cobalt Cube power connector, as seen from the side that faces away from the Cobalt Cube

The connector can be cabled into the vehicle as follows:

Pin number	Function
1	Ground
2	-
3	Battery plus
4	Accessory

For the Cobalt Cube to operate correctly, it must receive a constant 12v supply to both the battery plus and accessory pins. Therefore, it is advised to connect both cables to the same battery.

If the vehicle has an auxiliary battery to keep devices powered when the engine/main battery is off, the Cobalt Cube should have both battery plus and accessory connected to this auxiliary supply.

2 First-time setup

2.1 Automated acceptance of Android Auto prompts

The first time the Cobalt Cube is connected to a particular vehicle there are set-up prompts from Android Auto that need to be accepted. This process has been automated so that no user interaction is required. The Cobalt Cube needs to be powered on and plugged into the vehicle, then after 1-2 minutes, the Cobalt Cube screen should appear on the head unit. If the Cobalt Cube does not show on the head unit, follow the steps in the Cobalt Cube FAQs page.

2.2 Product activation

The Cobalt Cube must be activated before it can be used. This is part of a wider, new addition to the product in version 2.0, namely Enterprise Device Management for your fleet of Cobalt Cube units. The feature supports dynamic configuration and deployment of apps, services and settings. This is particularly useful for batches of units installed and/or managed by the same supplier, which are in use by different groups of users with differing needs. Product activation involves a unique code(s), including all the dynamic configuration required for the deployed unit(s).

Product activation can be carried out before or after the unit has been fitted in a vehicle. When activating outside of a vehicle, attach an HDMI monitor and a mouse. In a vehicle, the vehicle's head unit can be used when activating the Cobalt Cube. Until a Cobalt Cube is activated, it will remain on the screen shown in Figure 4.

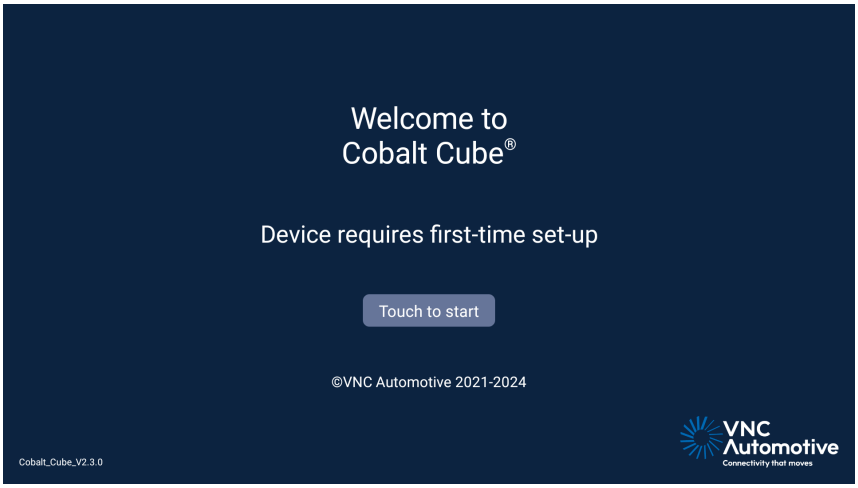


Figure 4: Welcome screen for Cobalt Cube activation

2.2.1 Activation codes

If you do not have an activation code for your Cobalt Cubes, contact your VNC Automotive representative to discuss your needs.

2.2.2 Activating a Cobalt Cube

On the screen in Figure 4, click “Touch to start”. The screen in Figure 5 will appear. Put your activation code on the USB storage device. It is important that this file is not renamed between receiving it from VNC Automotive and applying it to a Cobalt Cube.

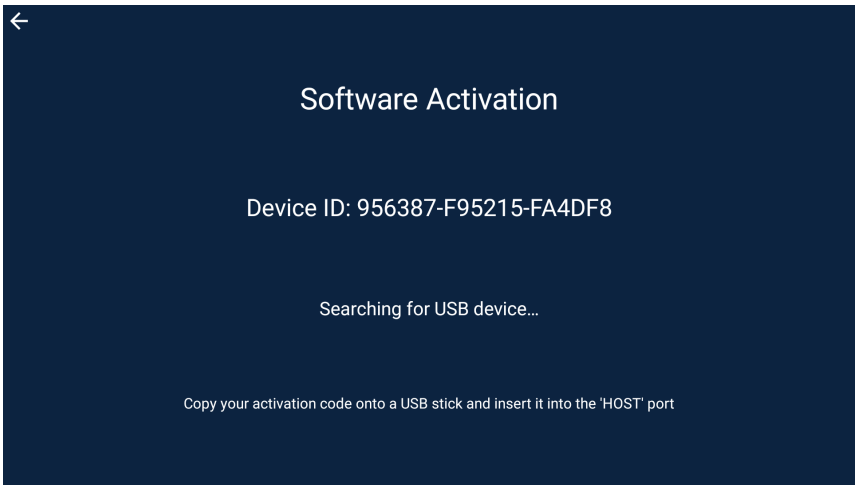


Figure 5: Activation screen

Insert the storage device with the activation code into the Cobalt Cube’s “HOST” port. When activating the Cobalt Cube in a vehicle, it may be easier to do this before starting the engine, if the Cobalt Cube is stored out of reach from the driver’s seat. When the storage device is detected by the Cobalt Cube, it will read the activation code and start the activation process, which should only take a few seconds. This will enable all purchased apps and apply any settings that have been specified in the activation code. Upon a successful activation, the screen in Figure 6 will appear. Touch anywhere to navigate to the launcher screen shown in Figure 8.

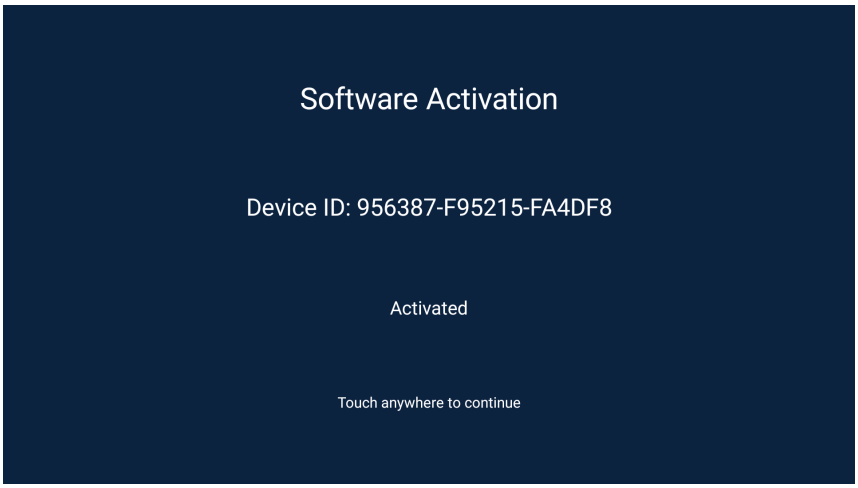


Figure 6: Activated screen

Note: if the storage device is not detected after ten seconds, try pressing the back button in the top-left corner, and then pressing the “Touch to start” button again. Otherwise, remove the device and re-insert it.

The Cobalt Cube will scan the removable storage device for activation codes, and ignore any that were created for devices other than itself. This is a convenience for installers that use the same USB stick to configure many devices over time. If there is more than one activation code that applies to a particular unit, the user must select one using the dialog shown in Figure 7.

Figure 7: Activation code selection

Once an activation code is selected, and “ACTIVATE” is clicked, the activation process will continue in the same way as before, and the screen in Figure 6 will be shown.

3 System customisation

The Cobalt Cube comes pre-installed with Android and includes a selection of applications based on the options purchased. The Android image can be updated (see section 4).
All installed applications can be launched from the Cobalt Cube launcher, shown in Figure 8.

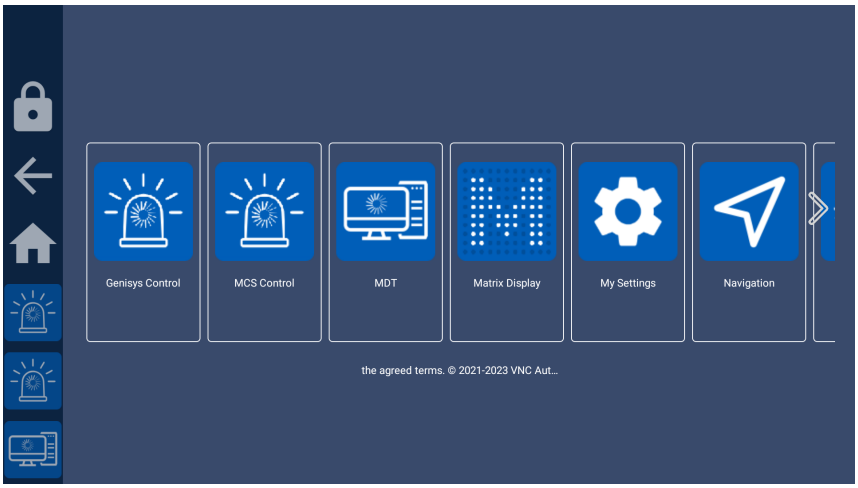


Figure 8: Cobalt Cube launcher

3.1 Accessing Cobalt Cube settings

The Cobalt Cube settings are accessed through a hidden menu on the main screen. This menu may be accessed by triple-tapping the bottom left corner of the main screen:

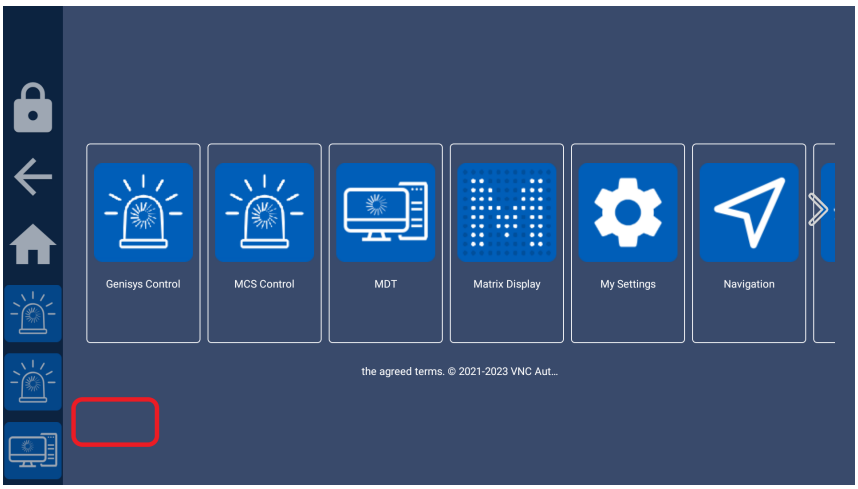


Figure 9: Area to triple-tap for Cobalt Cube settings

3.2 Settings PIN lock

The Cobalt Cube settings page is protected by a pin lock to prevent unwanted user tampering when the unit is deployed.

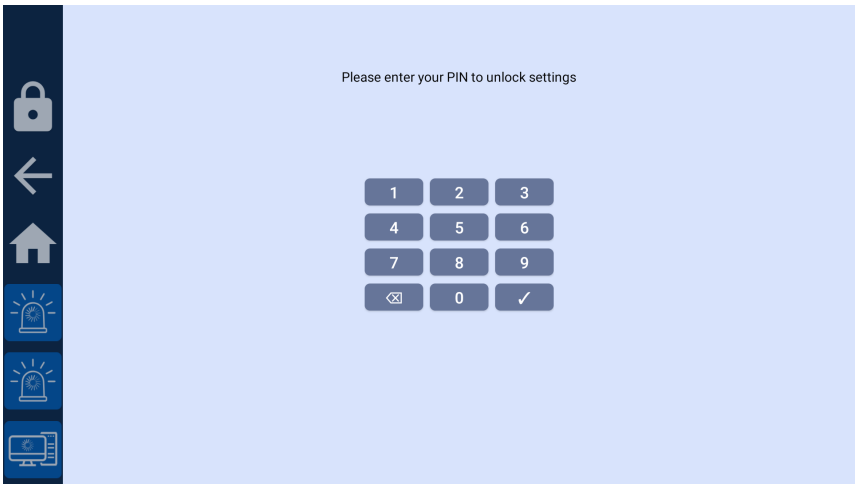


Figure 10: Settings PIN lock

The Cobalt Cube ships with a default pin code of: 2823

You can change this default pin once you access the settings menu.

Note: if you forget your updated pin there is no way to reset it.

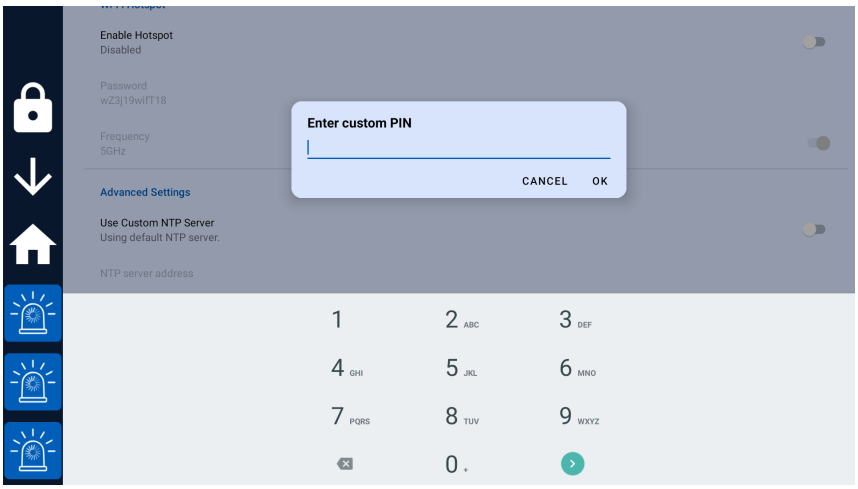


Figure 11: Custom PIN entry

3.3 Application specific settings

Some applications on the Cobalt Cube have their own settings menus. These can be found at the top of the Cobalt Cube settings page. A single tap on each listed icon will launch the settings for that app.

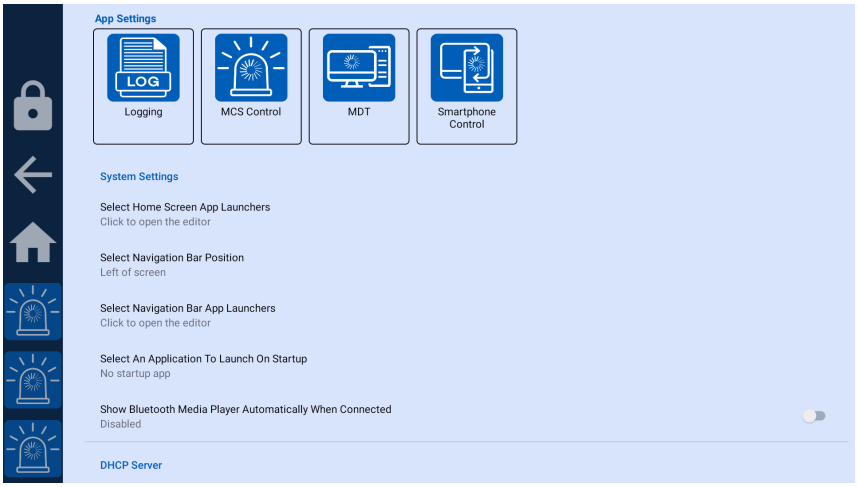


Figure 12: Application settings

3.4 Changing the display name for an application

Applications that support their own settings also support having their display name changed on the Cobalt Cube main screen. To enter a display name for an app, press and hold on the application icon at the bottom of the Cobalt Cube settings menu until the name change dialog appears.

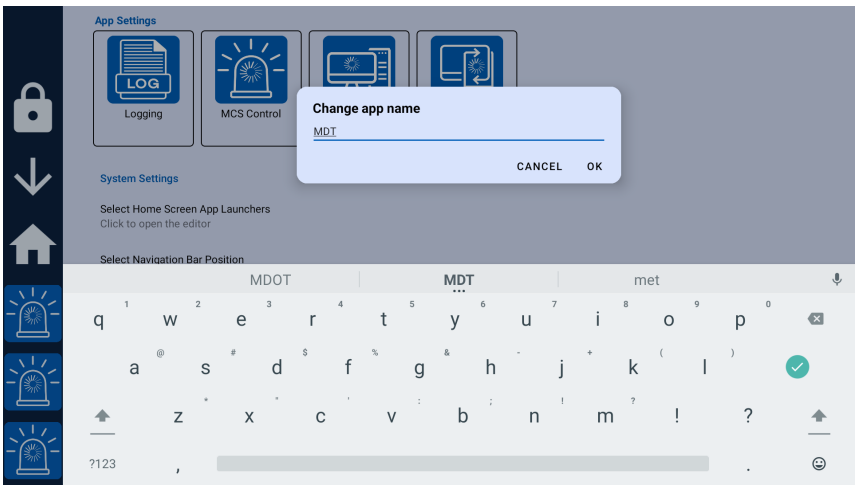


Figure 13: App name customisation

Note: The name of the Logging App will always be “Dump Logs” in the Cobalt Cube Launcher. This reflects the functionality of the app when shown in the launcher.

3.5 Navigation bar

The Cobalt Cube features a navigation bar that is divided into three zones:

Zone 1: (Red) The icon in this section is to access privacy mode that will apply an overlay to the screen to prevent sensitive content being read. Tap the icon to toggle the overlay on/off. (Note privacy mode does not hide the navigation bar or other system components).

Zone 2: (Green) The first icon in this section is the back button. Use this when navigating apps and menus to return to the previous page.

The second icon is the home icon. Use this to return to the Cobalt Cube main screen.

Zone 3: (Blue) Here you will find the icons for moving quickly between installed apps without having to go via the Cobalt Cube main screen.

This section will display different icons depending on what apps are installed on your Cobalt Cube.

3.5.1 Position

The Cobalt Cube navigation bar can be configured in four possible ways. By default, the navigation bar is present on the left side of the screen. When changing the position of the navigation bar the following list of four options will be shown as in Figure 14.

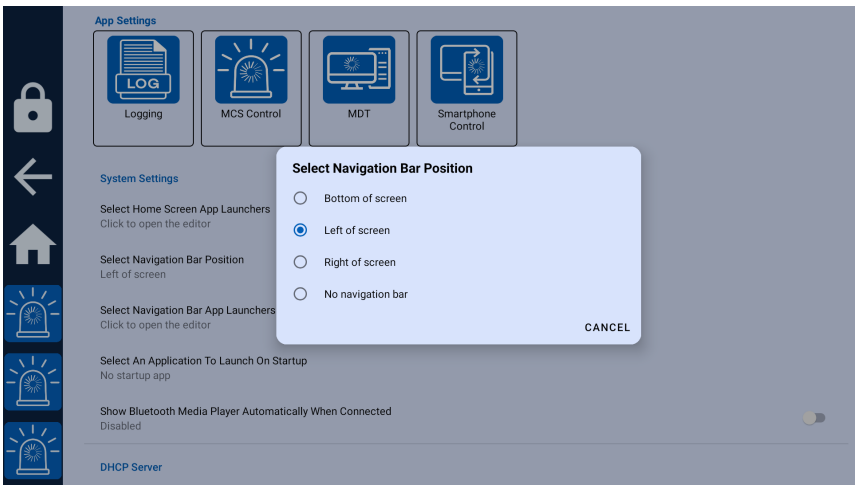


Figure 14: Navigation bar position dialog

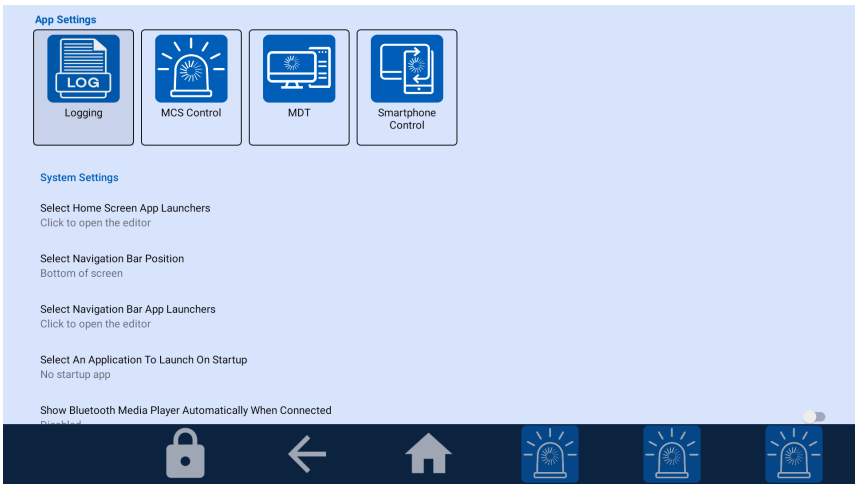


Figure 15: Navigation bar at the bottom of the screen

Note: Only applications pre-installed by VNC Automotive on the Cobalt Cube are guaranteed to be navigable when the navigation bar is hidden (done by selecting “No Navigation Bar” in the options). As such, we recommend that you keep the navigation bar visible and only turn it off if you have a specific reason to do so. Furthermore, when setting up your Cobalt Cube, disabling the navigation bar should be the last step you perform.

Note: If you choose to hide the navigation bar then navigation bar specific functionality such as “privacy mode” will be unavailable.

3.5.2 Navigation bar quick launch apps

There are three spaces for app launchers in the navigation bar. By default, these are populated by VNC Automotive applications. They can be changed by clicking “Select Navigation Bar App Launchers”. A dialog will appear showing the apps currently in the navigation bar as well as the apps that could be added to it. Apps that are not currently in the navigation bar are greyed out. Tap the greyed-out app icons in the dialog to add them to the navigation bar, and the non-greyed-out icons to remove them.

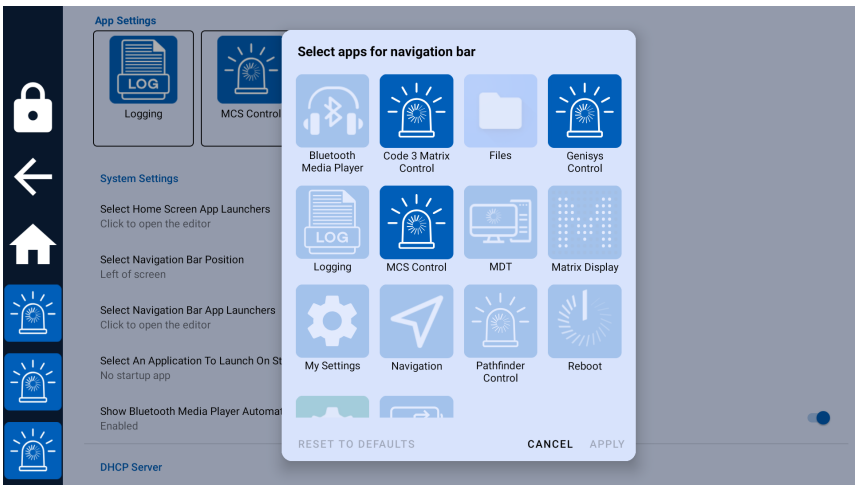


Figure 16: Navigation bar application picker

Note: The order in which apps are added to the navigation bar affects the order in which they are displayed.

3.6 Setting up the home screen

By default, the home screen is set up with all installed VNC Automotive applications listed in alphabetical order, except for Bluetooth Media Player and Logging. App launchers can be added or removed from the home screen by clicking the “Select Home Screen App Launchers” option. A dialog will appear with icons representing the apps that can be added to the home screen, which are greyed out, as well as apps that are already shown on the home screen, which are not greyed out. This dialog behaves in a similar way to the dialog for changing the apps in the navigation bar. Click the app icons in the dialog to select or deselect them. Selected apps will appear in the home screen once the changes are applied.

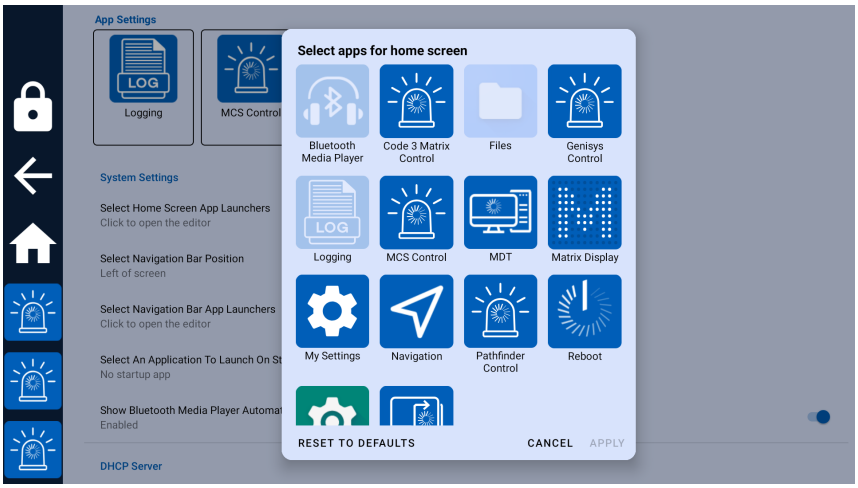


Figure 17: Home screen application picker

Note: By default, the System Settings application is hidden. You will need to enable it through this menu to access features like Bluetooth settings.

3.7 Setting a startup application

If there is an application that should open on startup, it can be selected in the “Select an application to launch on Startup” menu. By default, this is set to “No startup app”.

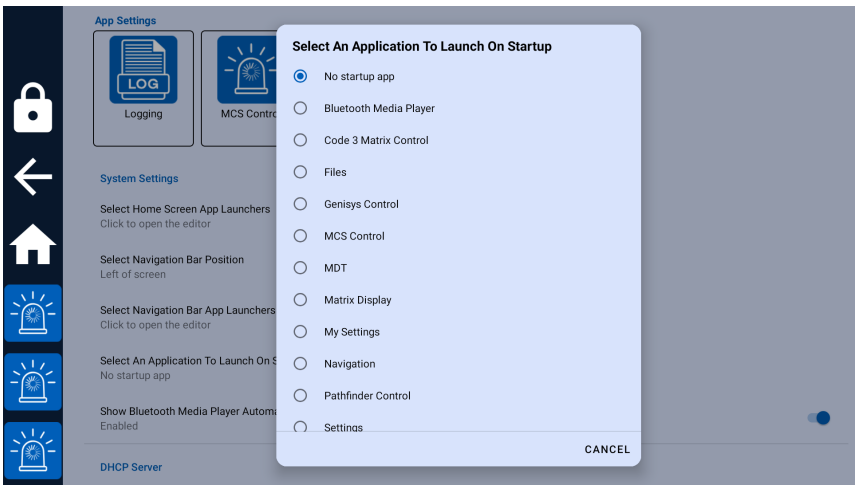


Figure 18: Startup application picker

Note: only apps shown on the home screen will appear in this menu. If an app is missing from this menu, add it to the home screen.

3.8 Setting a custom Network Time Protocol (NTP) server

The Cobalt Cube supports user defined NTP servers. Initially, three things need to be done before the custom NTP server will be enabled. First, the custom NTP server toggle under “Use Custom NTP Server” must be toggled on. Second, the “NTP server address” must be set to the desired IP address or domain name as seen in Figure 19. After both these steps are complete, the Cobalt Cube must be rebooted for the changes to take effect.

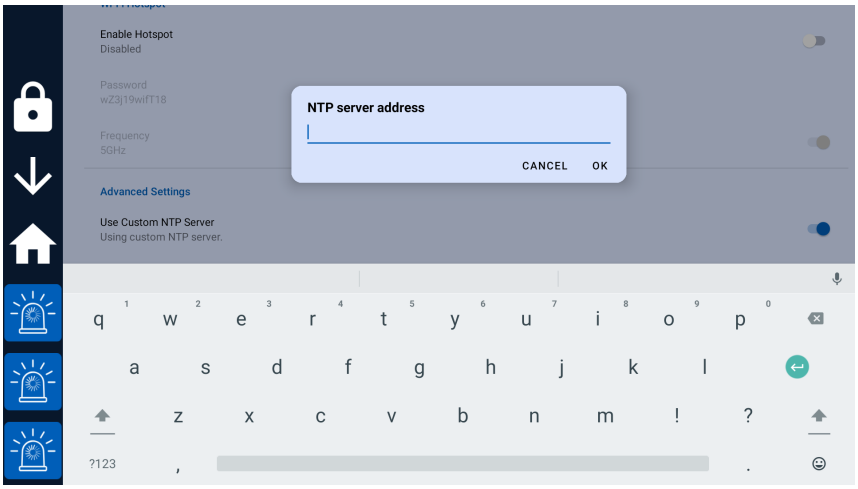


Figure 19: Choose custom NTP address

To disable the use of a custom NTP server the “Use Custom NTP Server” should be toggled off and the Cobalt Cube rebooted. There is no need to clear the address saved in “NTP server address” when disabling the custom NTP server. If an address is already present in “NTP server address” when “Use Custom NTP Server” is toggled on, then it will be applied after the subsequent reboot. When either the toggle is changed, or the address entered a prompt will show as in Figure 20. This shows the following options: “CANCEL CHANGES” which stops that change from being applied and returns you to the settings, “REBOOT LATER” will save the change so it will be applied on any later reboot and “REBOOT NOW” which immediately reboots and applies the change.

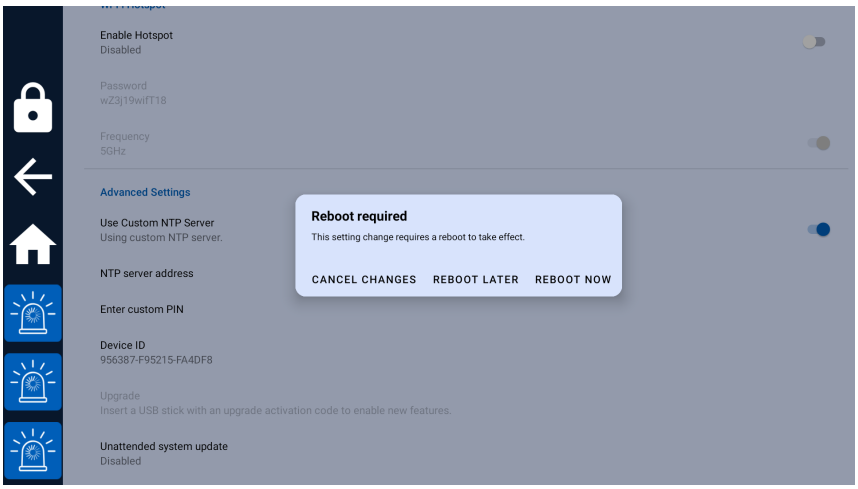


Figure 20: NTP reboot prompt

Note: The Cobalt Cube polls the custom NTP server once a minute. This allows the use of the server as a source of time-zone adjusted time, where large jumps are possible.

3.9 Phone call support

While the Cobalt Cube is connected to the vehicle touchscreen, a mobile phone handset can also be connected to the vehicle's head unit via Bluetooth. This allows call audio to be handled through the vehicle's speakers and microphones. For the widest compatibility with different vehicles and mobile phone handsets, Cobalt Cube has been designed to work alongside the pre-existing Bluetooth hands-free phone call support of the vehicle. For Cobalt Cube to run alongside a paired handset in the vehicle, a one-time setup process is required.

Note: Control over the call (making a call/picking up a call etc…) is dependent on the behaviour of the particular vehicle. Call controls in some vehicles may be disabled whilst Android Auto is active. One or more of voice command, steering wheel buttons, head-up display controls and central console controls may or may not be possible in your vehicle whilst Cobalt Cube is connected. When integrating Cobalt Cube in a new vehicle it may be instructive to run test calls and identify the supported functions for phone call handling.

3.9.1 Setup

The following steps should be followed to set up phone call support.

Step 1 - Link the phone to the Cobalt Cube

The first step is to link the phone with the Cobalt Cube. To do this the phone must have its Bluetooth turned on and be discoverable. Open "My Settings" and click "Selected Bluetooth handset" under the category of "Phone Settings". This brings up a pop-up which shows all discoverable Bluetooth devices within range of the Cobalt Cube, select the phone you would like to use (as seen in Figure 21).

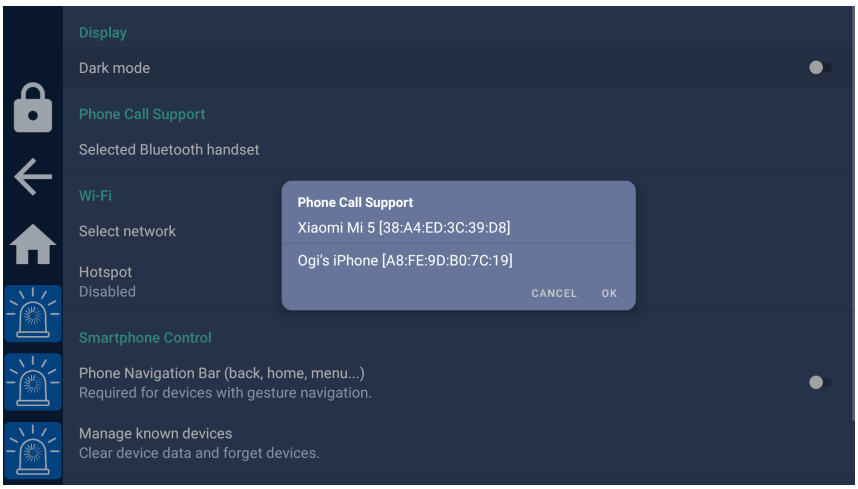


Figure 21: Linking a phone to the Cobalt Cube

Click "OK" to select the device that will be linked to the Cobalt Cube. To complete the linking procedure, the Cobalt Cube will need to be restarted. A pop-up will appear allowing an immediate reboot or a deferred reboot (see Figure 22). If the reboot is deferred, then the "Reboot" app will need to be used to reboot the Cobalt Cube before moving on to the next step.

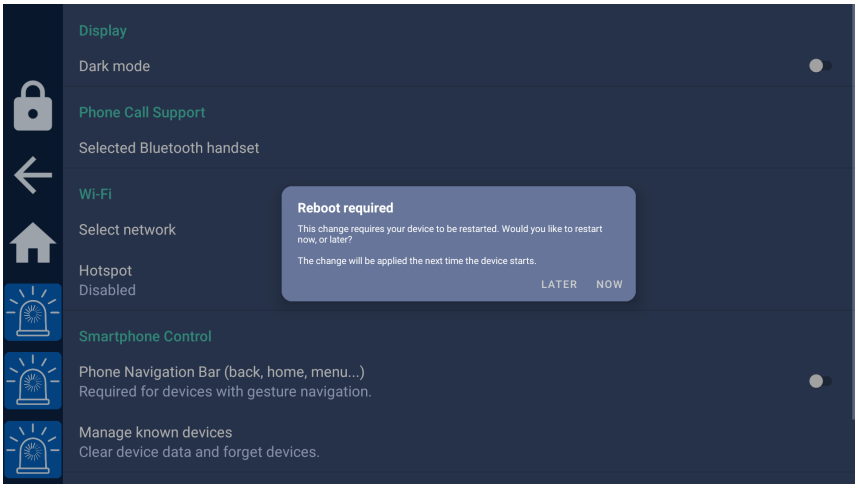


Figure 22: Post linking reboot prompt

Step 2 - Pair and connect the phone to the vehicle

If the specified phone is already paired and connected to the vehicle, then this step can be skipped. If not, the phone needs to be paired and connected to the vehicle through Bluetooth. Ensure that the vehicle is selected as the device used for phone calls. Once this is done, all phone call audio will be routed through the vehicle.

Note: In a small number of vehicles, it has been observed that pairing cannot be done while the Cobalt Cube is connected, in this case, restart the Cobalt Cube and pair the phone while it is rebooting.

Note: Sometimes a vehicle will connect to the Cobalt Cube instead of or as well as the phone. The vehicle may attempt to route phone call audio from the Cobalt Cube instead of the phone. To avoid this, link the phone to the Cobalt Cube (Step 1). If the Cobalt Cube is paired to the vehicle after it has rebooted, unpair the vehicle and the Cobalt Cube. The vehicle will not re-pair with the Cobalt Cube.

3.10 Bluetooth Audio

The Cobalt Cube can act as a bridge between a Bluetooth capable device and the vehicle, enabling the audio from the device to be played through the vehicle's speakers.

3.10.1 Setup

The following steps need to be followed to enable the use of Bluetooth audio through the Cobalt Cube.

First the device must be paired with the Cobalt Cube. To do this, the device must have its Bluetooth turned on and be discoverable. The device and the Cobalt Cube can be paired through the "Settings" app (this can be shown on the home screen by following the instructions in section 3.6). To do this, open "Settings" and go through the following menus: "Connected devices" → "Pair new device". Then select your device and follow the instructions on the prompt. After the devices are paired, ensure that media audio is enabled for your device by opening the "Settings" app and selecting "Connected devices" → your device. The "Media audio" setting should be enabled as in Figure 23. If it is not, toggle the option so that it is enabled for this device.

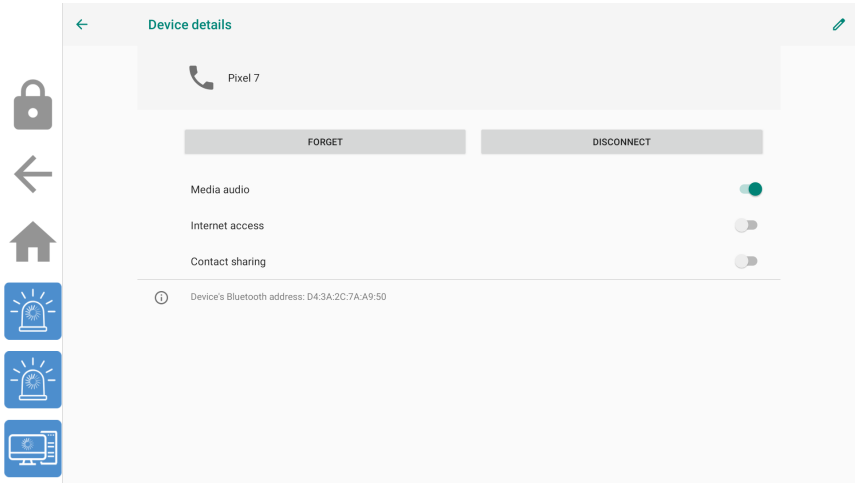


Figure 23: A Bluetooth device with Media audio enabled

Note: Multiple Bluetooth devices can be connected to the Cobalt Cube at once, however, only one should be enabled for media audio at a time as there is no way to select which one will be used.

3.10.2 Bluetooth Media Player

When another device is connected to the Cube and playing media audio, this audio can be controlled using the Bluetooth Media Player app on the Cobalt Cube. There are three ways to access the Bluetooth Media Player:

- Add the Bluetooth Media Player to the home screen (see section 3.6 for more details) and open the app as normal.
- Enable "Show Bluetooth Media Player Automatically When Connected" as seen in Figure 12 which will launch the media player when a Bluetooth media device is connected.
- Open it from the volume control bar by clicking the Bluetooth icon in the volume control bar (see Figure 24). The volume control bar is shown when the volume is changed on the Bluetooth media device.

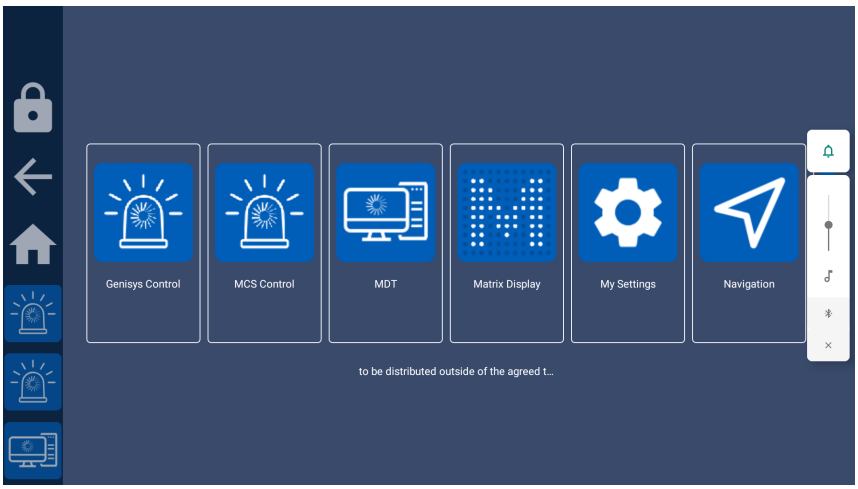


Figure 24: The volume control bar

The Bluetooth Media Player has two modes:

- Full-screen mode: Where the media player covers most of the screen, see Figure 25.
- Overlay mode: This is a smaller overlay at the top of the screen, see Figure 26.

Switching between these modes can be achieved by clicking the plus or minus buttons on the right-hand side of the Bluetooth Media Player, and it can be closed by clicking the adjacent “X” icon.

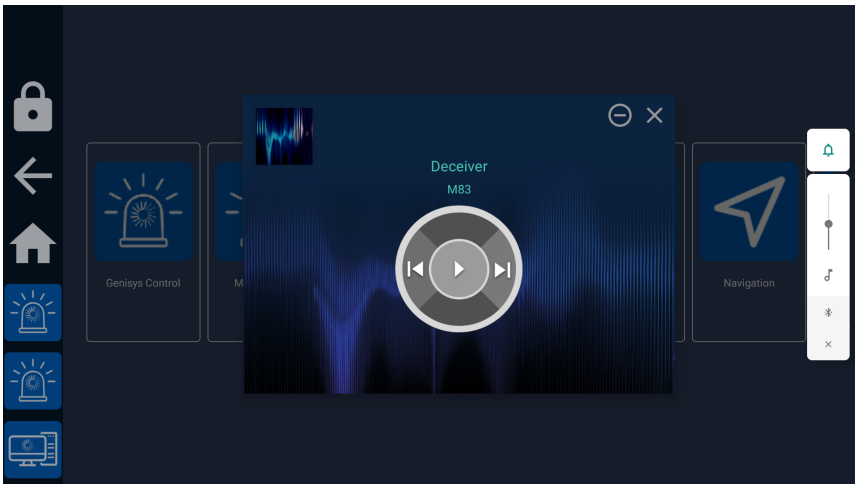


Figure 25: The Full-screen media player

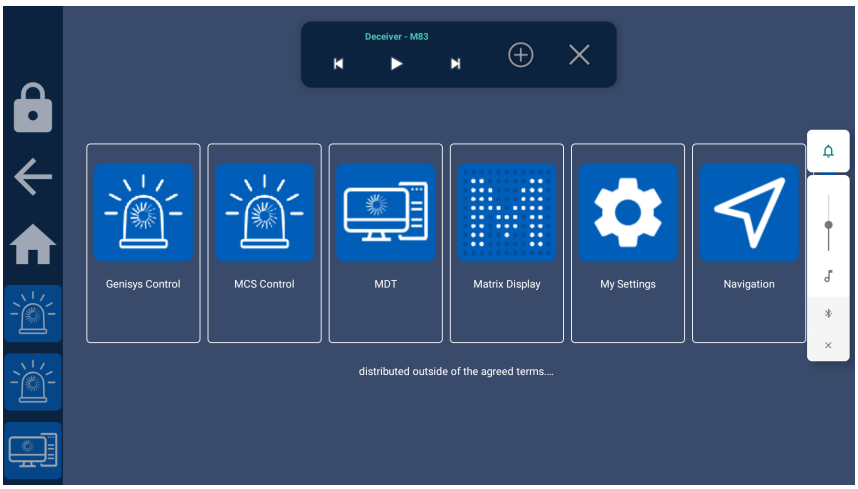


Figure 26: The media player in overlay mode

The play/pause, next and previous buttons can be used to control the media audio from the Cobalt Cube. However, these controls will not work for non-media audio such as navigation directions.

3.10.3 Bluetooth Automatic Reconnect

The Cobalt Cube is able to automatically reconnect to any Bluetooth devices that it has previously been connected to. It will do this for 5 minutes after it boots, or until it successfully connects to a device, whichever is sooner. This means that a device that is paired with the Cobalt Cube and within Bluetooth range will automatically connect when the Cobalt Cube boots, without requiring any user intervention.

If, after the 5 minutes has passed, the Cobalt Cube has not been able to connect to any Bluetooth devices, it will stop attempting to connect automatically. In this case a Bluetooth connection will need to be manually initiated from either the Cobalt Cube or the other device by the user.

3.11 Installing 3rd party apps

3rd party apps can be easily installed on the Cobalt Cube with the use of the Files app. To install an app, first load the .apk file onto a FAT32 formatted USB stick. Plug the USB stick into the Cobalt Cube's "HOST" port and open the Files app. Select the USB stick in the Files app as seen in Figure 27.

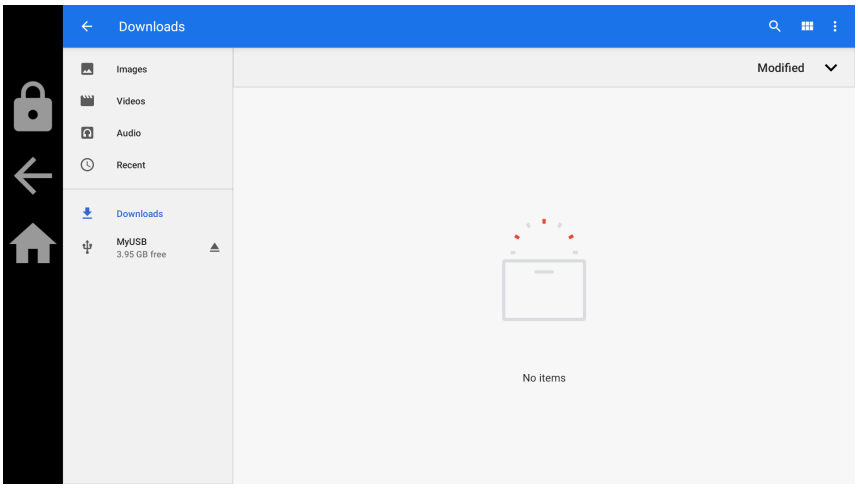


Figure 27: Selecting the USB stick in the Files app

Once the USB stick is opened in the Files app, click on the desired app (which will be a .apk file) to start the installation process.

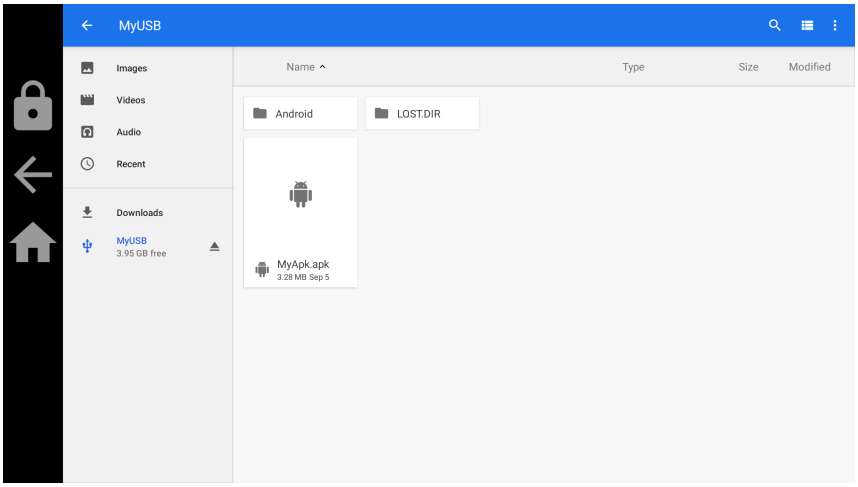


Figure 28: Selecting the apk in the Files app

Once the installation process has started, a warning will show as seen in Figure 29. Ensure that the app is not malicious and comes from a trusted source before continuing.

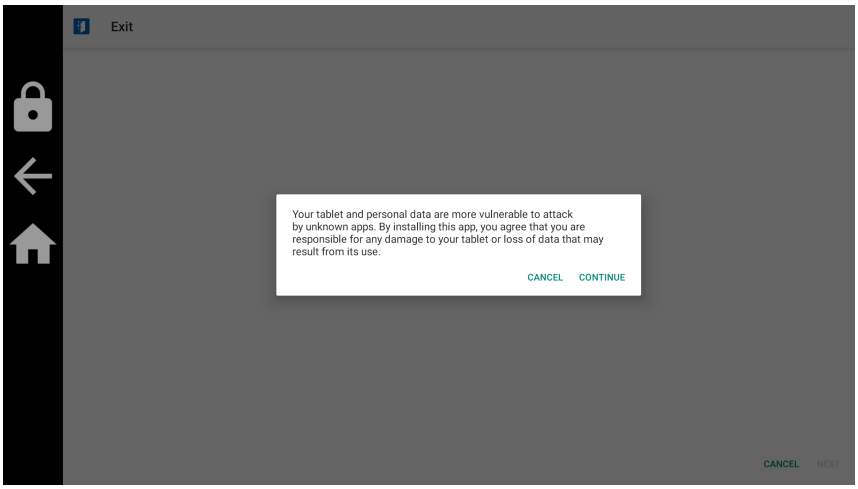


Figure 29: Installation warning

Clicking “INSTALL” on the screen shown in Figure 30 will install the app onto the Cobalt Cube.

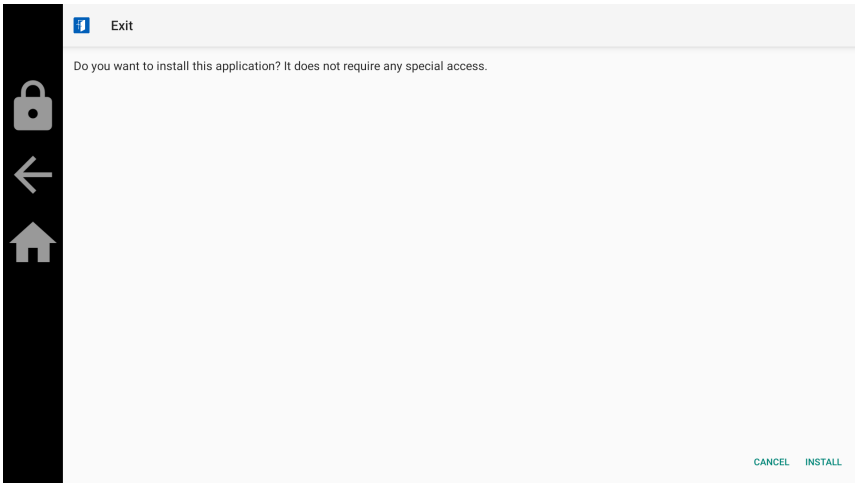


Figure 30: Installation screen

Upon successful installation of the app, the screen in Figure 31 is shown, the app can now be used on the Cobalt Cube.

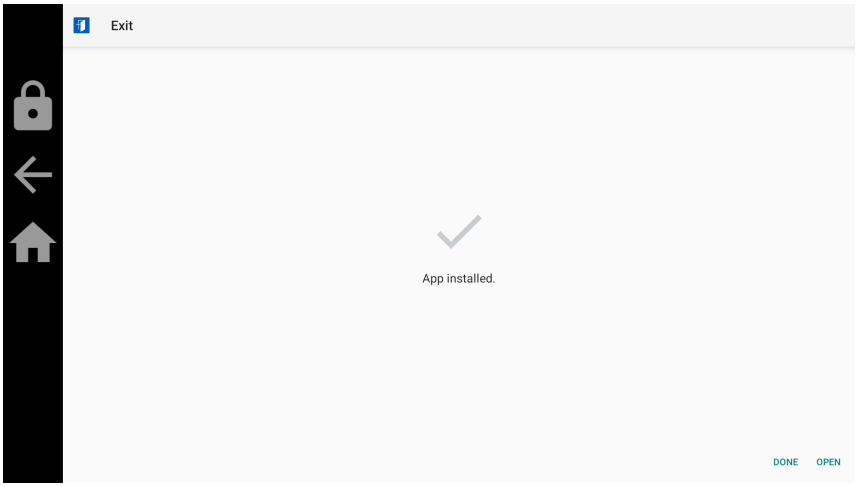


Figure 31: Successful installation

Note: Whilst many 3rd party apps can be installed and will operate successfully on Cobalt Cube, the behaviour of any 3rd-party app cannot be guaranteed, and should be confirmed independently. Some types of app require software or hardware dependencies that are not featured on Cobalt Cube.

4 Updating the system image

The Cobalt Cube system can be updated easily. Security, compatibility and/or feature updates will be routinely provided during the lifetime of your product. For this you will only need a FAT32 formatted USB stick and an update file provided by VNC Automotive.

Note: We recommend having an HDMI monitor connected to the Cobalt Cube while updating to allow you to monitor the progress of the update. While the update is in progress there will be nothing displayed through the car connection.

Warning: You must not remove the USB stick from the Cobalt Cube or interrupt the power while the device is being updated. If this happens it may render the device unusable, and it will have to be returned to VNC Automotive.

When updating a Cobalt Cube from a version older than v2.3.0.25, the update file will only be detected if it is called `update.zip`. If the version of the Cobalt Cube is v2.3.0.25 or newer,

the only requirements are that the update file has a `.ccu` extension and is no more than 85 characters in length excluding the extension. Make sure file extensions are visible in the file browser before checking either of these cases.

Follow these steps to apply the update:

1. Rename the update file if necessary (see note above).
2. Copy the update file into the root directory of the USB thumb drive.
3. Insert the USB thumb drive into the Cobalt Cube HOST port.
4. After a few seconds, a dialog will pop up, notifying that an update has been found on the USB drive (see Figure 32). Select “Install” to install it. If more than one update file is found you will be asked to select which you want to install (see Figure 33).
5. The Cobalt Cube will install the update, and automatically reboot in the process. This may take a few minutes - do not remove the thumb drive or power off the Cobalt Cube until the process is completed.

Note: if the update process appears to be stuck on a black screen, press the reboot button on the Cobalt Cube. The button can be found on the same side as the HDMI port.

The Cobalt Cube will automatically display a dialog notifying of the successful update after it has been rebooted, and asking the user whether they want to delete the update file from the USB thumb drive, to prevent the process from starting again (see Figure 34). At this point it is safe to extract the USB thumb drive. If you do not remove the USB thumb drive after the update the system may offer the update again.

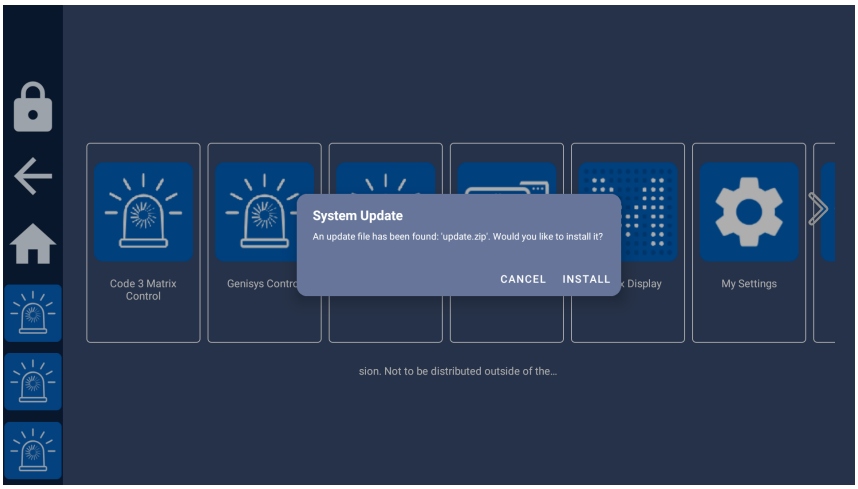


Figure 32: Update dialog

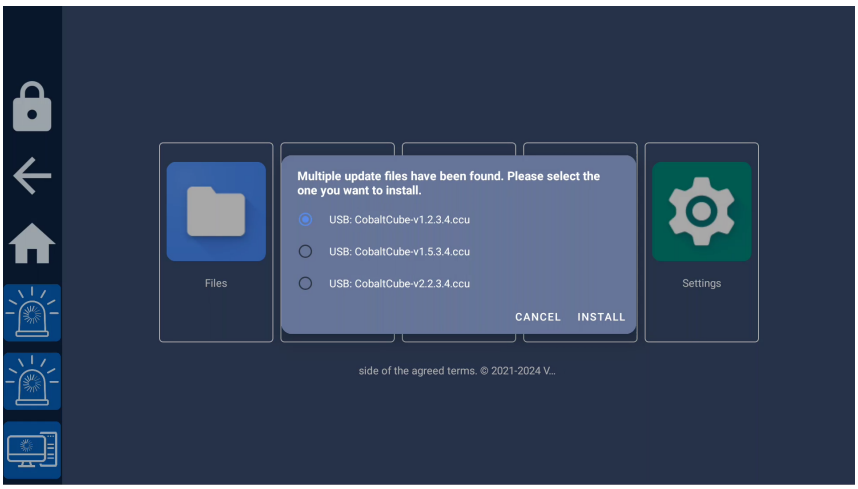


Figure 33: Update dialog

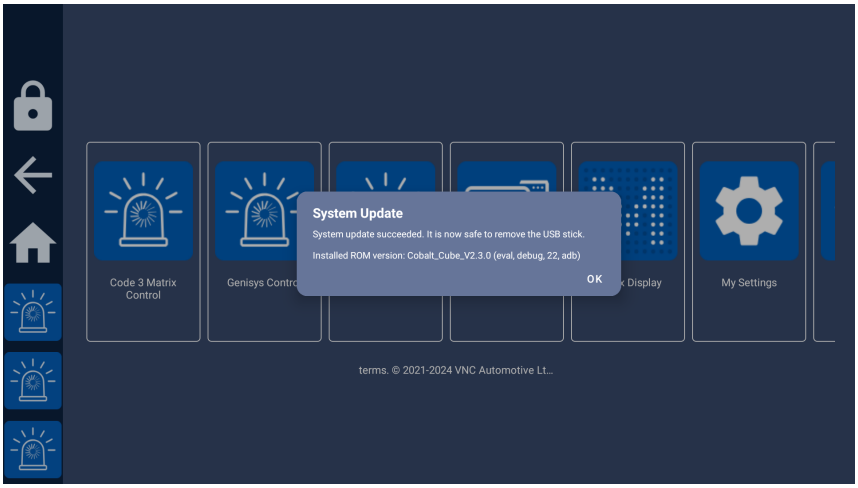


Figure 34: “Update successful” dialog

4.1 Rebooting the Cobalt Cube

In order to reboot the Cobalt Cube from the vehicle touchscreen, the Reboot app can be used. Clicking on the app opens a simple prompt as shown in Figure 35. Clicking “OK” on this will immediately reboot the Cobalt Cube, whereas selecting “CANCEL” will close the prompt and not reboot.

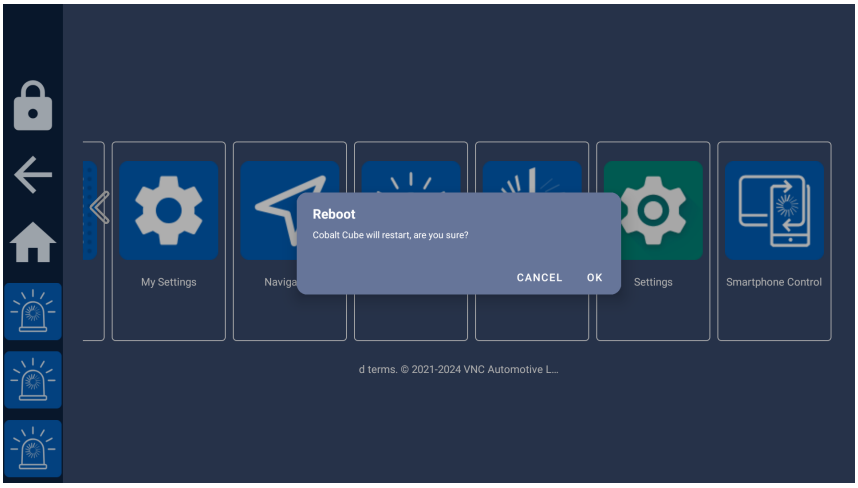


Figure 35: Cobalt Cube reboot prompt

4.2 Activating new features

If new apps or features have been purchased, they can be activated using the “Upgrade” option in hidden settings, under the “Advanced Settings” section. This is shown in Figure 36. To enable the option, a storage device with an activation code should be inserted into the “HOST” port.

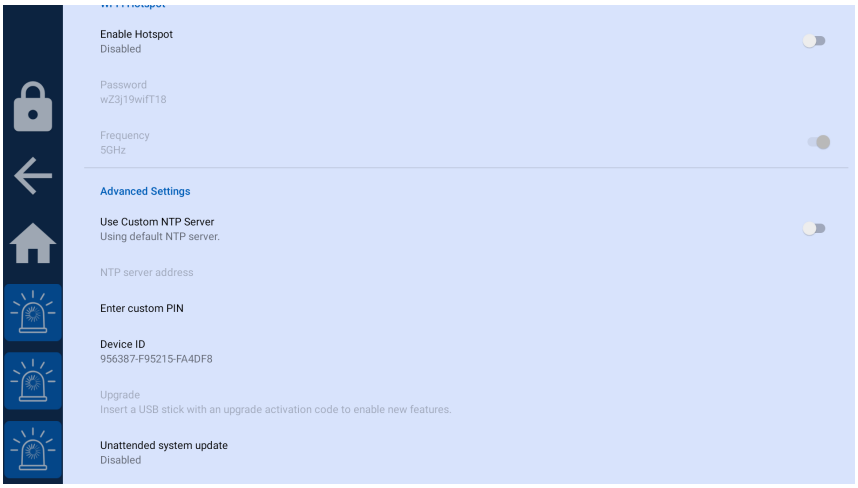


Figure 36: Upgrade option with no storage device inserted

When enabled, the upgrade option should appear as in Figure 37.

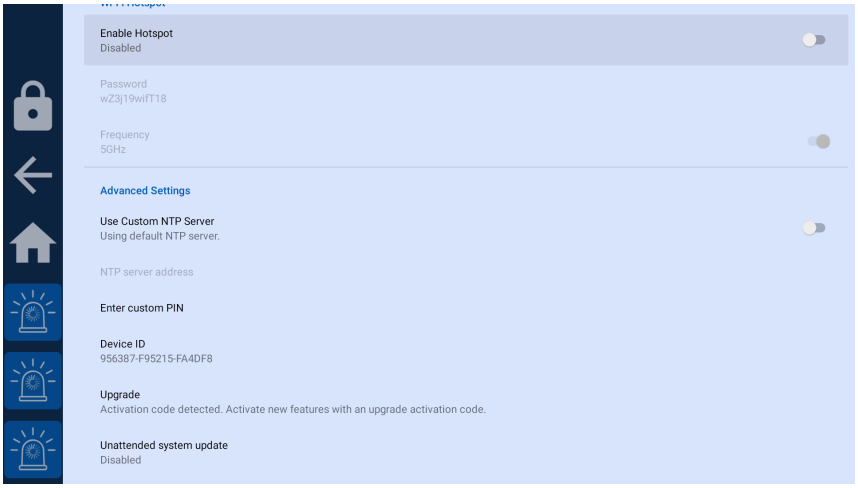


Figure 37: Upgrade option with activation code detected

Click the upgrade option to open the dialog shown in Figure 38. This should list the activation codes detected on the storage device. This will usually be only one. When the correct activation code is selected, click “UPGRADE”. This will apply the upgrade and activate any new purchased features.

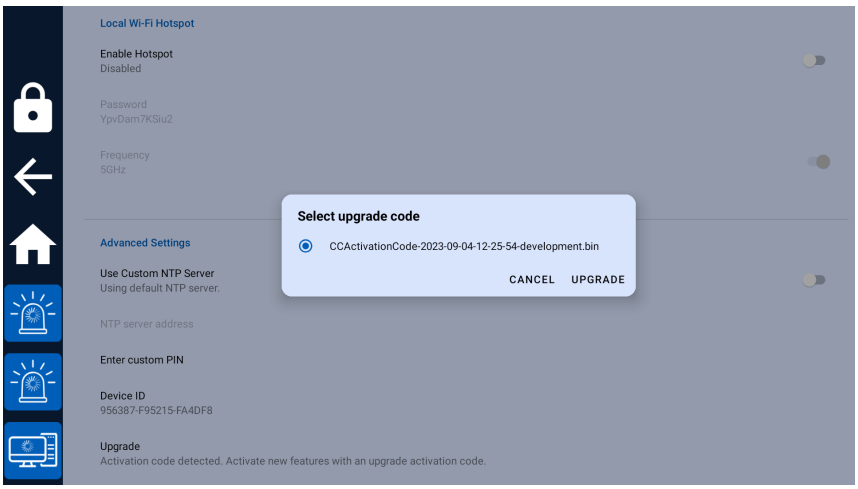


Figure 38: Upgrade option with activation code detected

Settings can also be applied in this step, to go along with any features that are activated.

5 System utilities

5.1 Extracting system logs

From time to time, inconsistencies or other undesired behaviour with Cobalt Cube may be noticed by users during normal operation. The device now comes with built-in system log capture. This is a tool intended to be used by technical support agents via suppliers or vehicle fitters so that detailed information about the state of the system at the present time, or over a historical period, can be extracted and sent away for analysis.

The built-in logger is a support feature and is not intended for vehicle users during day-today functioning of the Cobalt Cube. This section covers the Logging app, which allows the Cobalt Cube to save logs that can be sent to VNC Automotive in the event of an issue.

5.1.1 UI overview

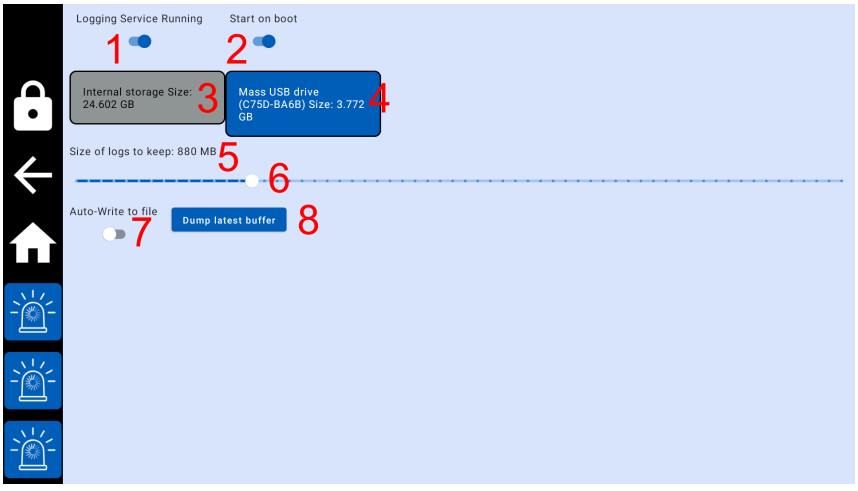


Figure 39: Logging app settings

1. Logging Toggle
    i. This toggles the logging feature on or off. When this is off, no logs can be written manually or automatically.
    ii. When this is on, the other logging features are available.

2. Start on Boot Toggle
    i. When this is enabled, Logging will start on boot using the same configuration as before the Cobalt Cube was rebooted.
    ii. When this is disabled, Logging will not start up automatically on boot.
3. Selected storage device
    i. The storage device highlighted in blue is where the log files will be written to. The size next to the device is the maximum space the log files can take up on the device.
    ii. Internal Storage corresponds to `/vnc/logging/`.
    iii. Devices are selected or unselected by tapping on them.
4. Other storage device
    i. The greyed-out storage devices are unselected and will not have any logs written to them.
5. Size of logs to keep
    i. This is the maximum size all the log files on a device will cumulatively take up. E.g., if this is set to 1GB then up to 1GB of log files will be written, before the oldest log files will start being overwritten to ensure the total size does not exceed 1GB.
    ii. The minimum size is 19MB.
6. Size of logs slider
    i. Moving this left decreases the size of logs to keep and moving it to the right increases the size of logs to keep.
7. Auto-write logs
    i. When enabled, logs will be written to the storage device every few minutes automatically without user interaction.
    ii. When disabled, logs are recorded only when user initiated, or when the Cobalt Cube disconnects from the car head unit.
8. Dump latest buffer
    i. This immediately writes a log file to the selected storage device.
    ii. When pressed a toast will appear indicating whether the writing was successful or unsuccessful.

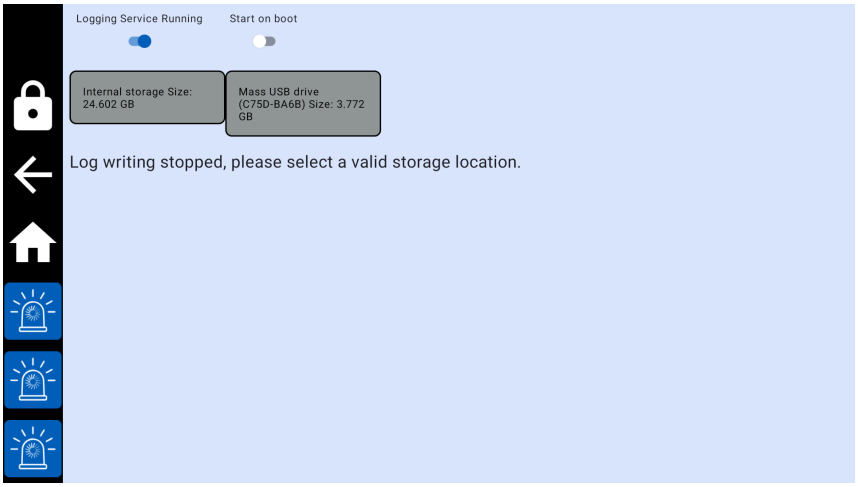
5.1.2 Additional information

- It can take 1-2 minutes for Logging to start up after boot.
- Do not turn off the Cobalt Cube or remove the selected storage device after manually dumping logs until the result has been indicated.
- If a valid storage device is not selected, the Logging service will be unable to save logs.
- The storage devices must be formatted to FAT32 and have a minimum size of 19MB.
- On USB storage devices the log files are written to `/Android/data/com.vncautomotive.logging/files/`.

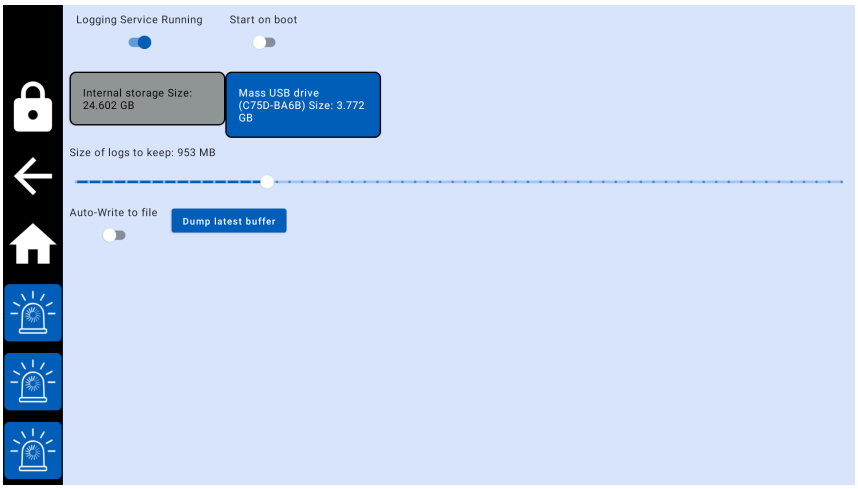
5.1.3 Enabling logging

1) Enable the Logging service:

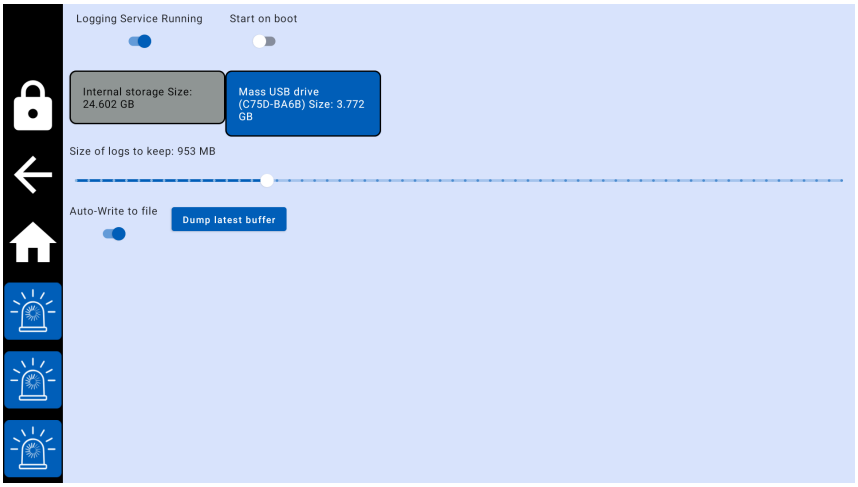
2) Select your preferred storage device:



3) Adjust maximum size of total logs:



4) Enable auto-writing logs:



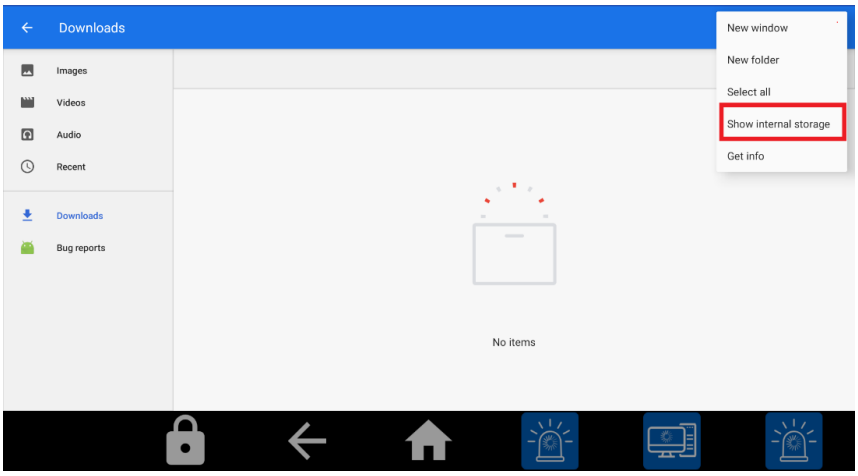
5.1.4 Enable user-facing log button

The Logging app can be added to the home screen or navigation bar (see section 3.6 for details). When the app is on either the home screen or navigation bar, it functions like the "Dump latest buffer" button. So any user can initiate the writing of log files by clicking the app icon. Logging must be enabled and set up for this to work.

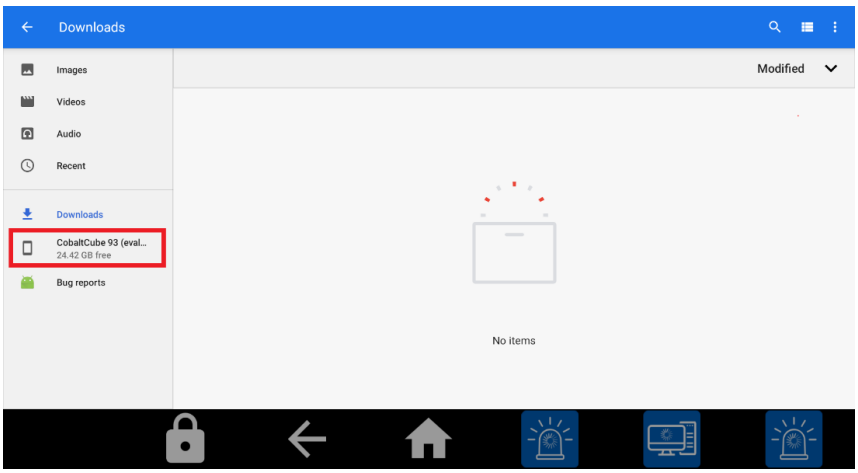
5.1.5 Extracting log files from the Cobalt Cube

When you are ready to retrieve the log files from the Cobalt Cube, they will need to be moved to a computer, so they can be transferred to VNC Automotive. If they were saved to directly to a USB device, then it can be removed and plugged into a computer for transfer. If the logs were saved to the internal storage device, the following steps can be used copy the logs to an attached USB.

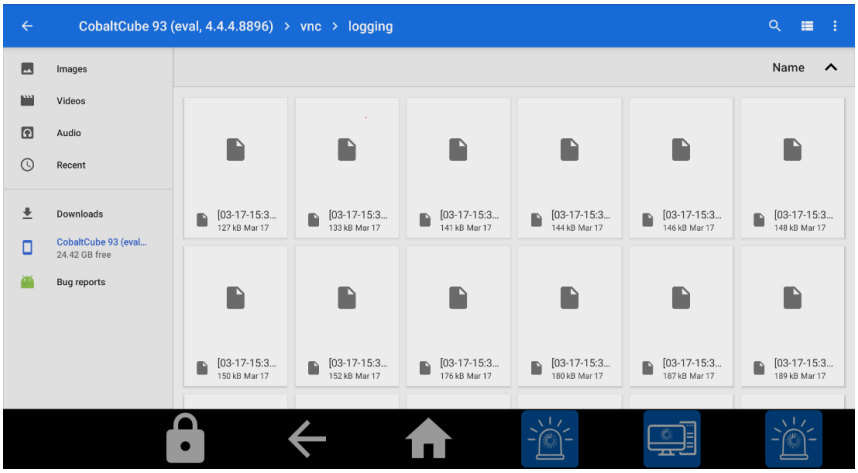
1. Logs stored in the internal storage of the Cobalt Cube can be found at `/vnc/logging/`. This directory can be accessed by opening the files app and clicking "Show Internal Storage":



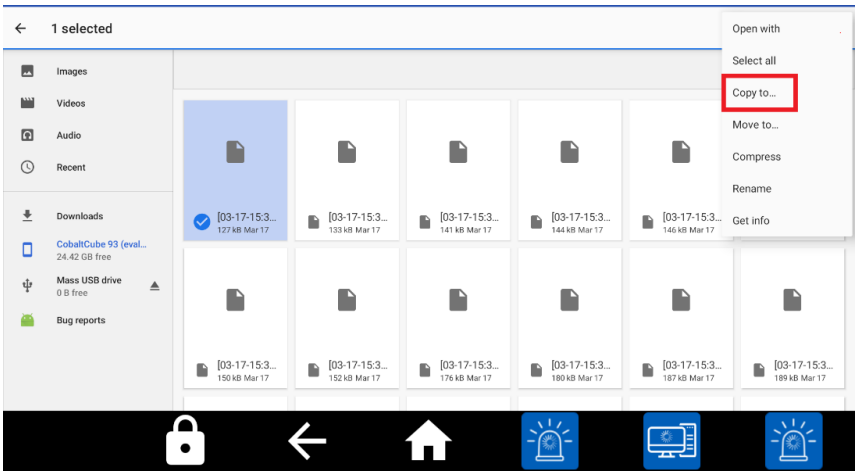
2. Select the Cobalt Cube storage device on the left-hand menu:



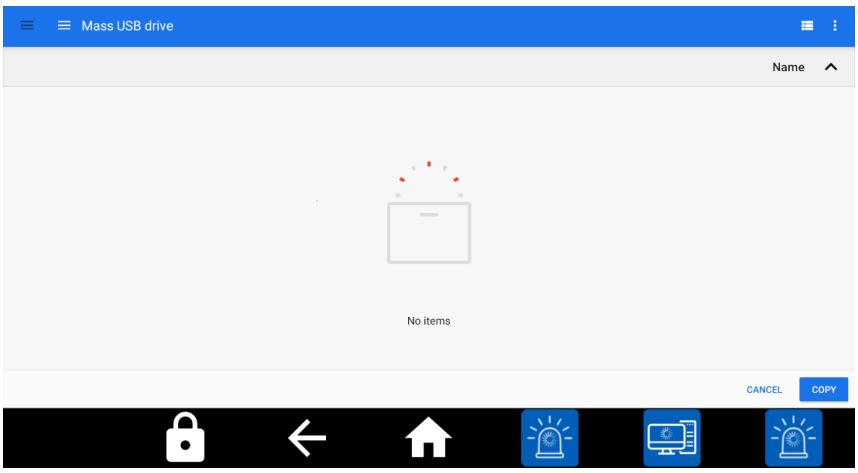
3. Navigate to `/vnc/logging/`:



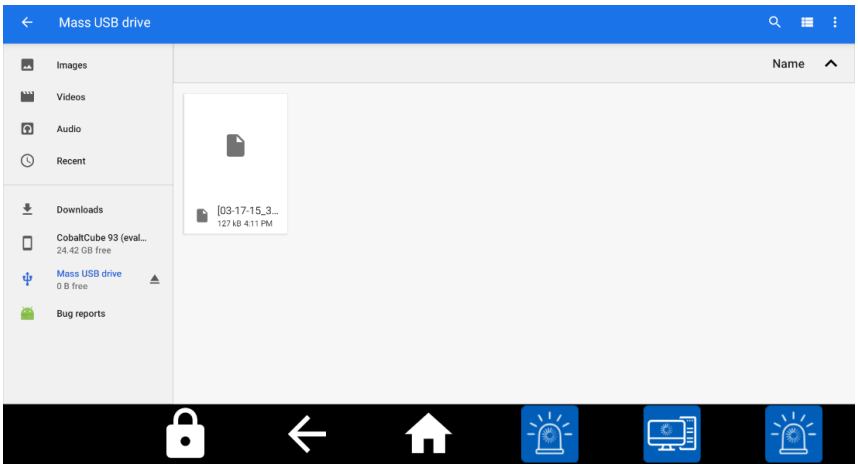
4. Long press to select the log(s) and select copy to in the menu at the top right:



5. Navigate to the USB flash drive and click copy:



6. Once the files have been copied, they will show in the USB flash drive:



7. The USB flash drive can then be ejected, and the log files can be sent to VNC Automotive for examination.

Let’s discuss your project

As industry pioneers, we will help you cut through the complexity and deliver ingenious connectivity technology for the vehicles of tomorrow.

Get in contact via:

www.vncautomotive.com
technicalsupport@vncautomotive.com