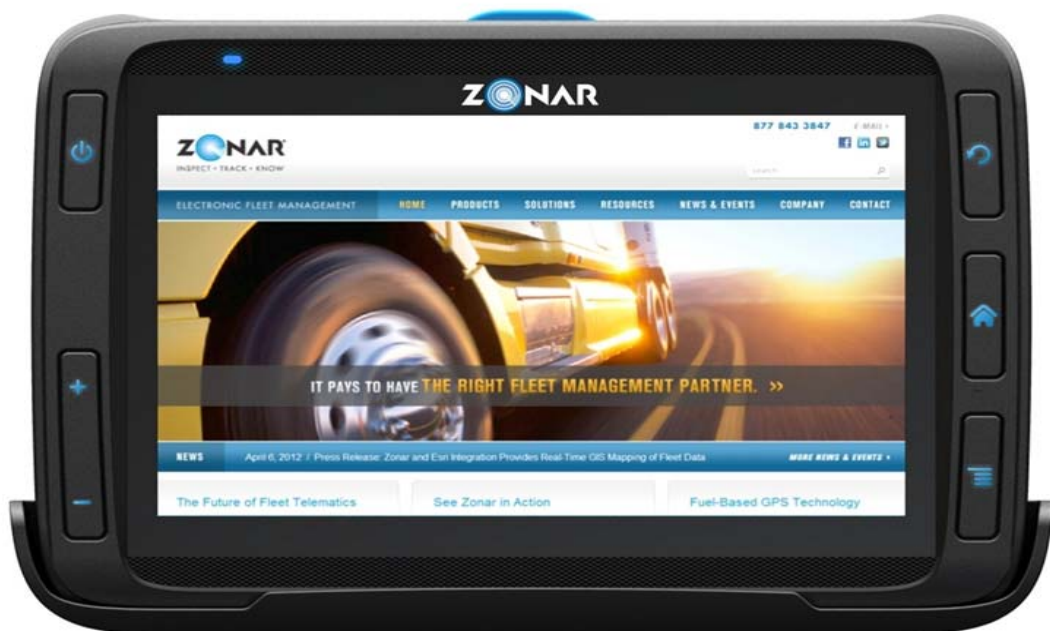




Zonar 2020 User's Guide



Version: 9/20/2012

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Introduction

The Zonar 2020 is an Android-based tablet focused on providing a rugged device with all-in-one technology that drivers can use to perform inspections, navigate routes, view workflows, tasks, send and receive messages, maintain electronic HOS records and receive driving feedback. Also, drivers and their managers can easily access these records through Zonar's servers in order to improve efficiency and safety across their projects. In addition, the 2020 can scale and grow to develop additional applications that can be applicable to any business or business needs of our customers.

This guide's primary purpose is to serve as a general use for drivers and field technicians for the basic function of the 2020. While we attempt to point out the most common operation questions and issues, common sense, good housekeeping procedures, attention to detail and safety adherence of the user are critical for a successful use and maintenance of the Zonar 2020. For the day-to-day users of the 2020 and other Zonar products, we have included additional materials with the device to aid in the regular use and maintenance of this product while on the job. Digital files on the tablet provide deeper explanations of the tablet's functions are built into the 2020's help menu. Quick reference guides are included as well for drivers to quickly learn basic functions.

The software applications installed on the 2020 vary from device to device. This guide's primary purpose is to give drivers a basic overview of the general functions of the 2020 hardware and any applications that are built into every device. Details of the new applications are covered in detail in the specific help documentation for each application. Further information on each application can be found in the help documents for each.

A professional team of Zonar support technicians and engineers are available to answer all technical and usage questions. Contact Zonar at 1-877-843b-3847 or by email at customercare@zonarsystems.com.

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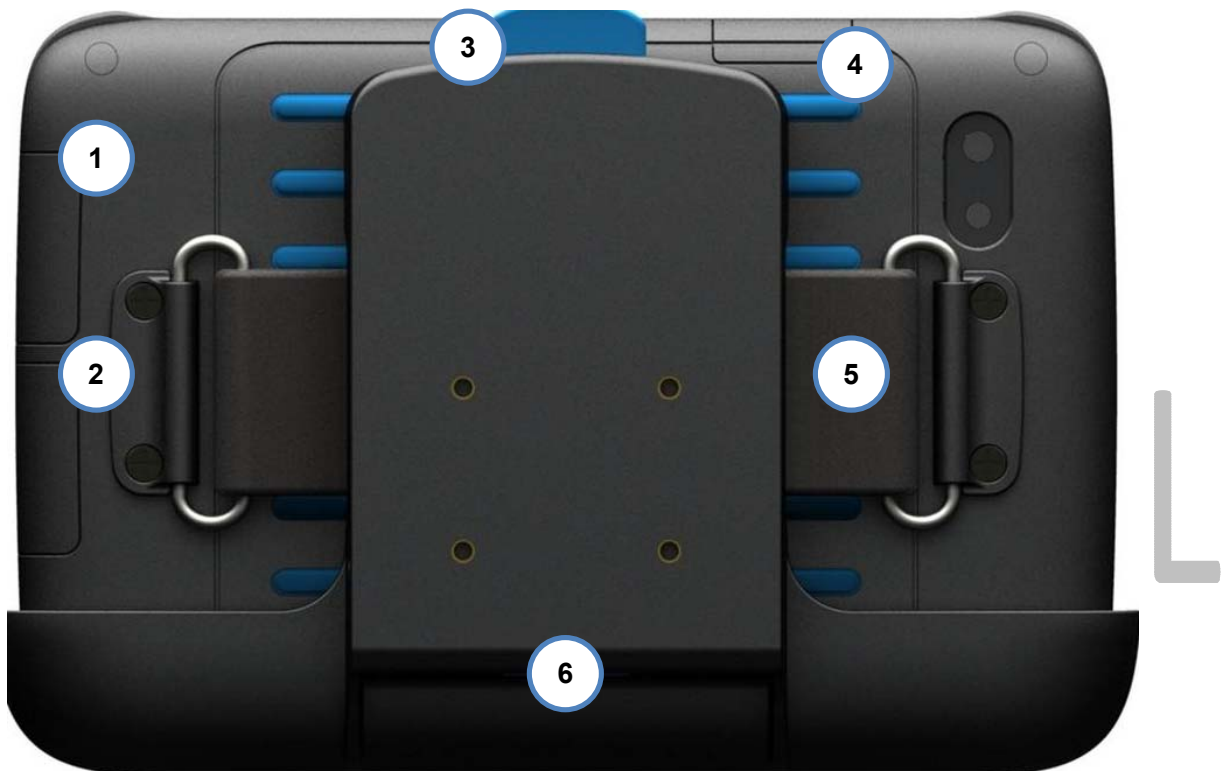
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Zonar 2020 Tablet



- 1 - Power
- 2 - Volume/Brightness Adjustment
- 3 - Touchscreen
- 4 - Eject (located on docking station)
- 5 - Refresh Page

- 6 - Return to Home Screen
- 7 - Access Settings/Help
- 8 - 2020 Docking Station



- 1 - Headphones and Mini USB port
- 2 - SD Card port
- 3 - Eject
- 4 - USB port



- Strap (optional)



- 2020 Docking Station (back view)

Right Side

Top



- Headphone Port



- MiniUSB Port



- SD Card Port



- USB Port

Glossary of Abbreviations/Acronyms

This guide and other 2020 documentation use a number of abbreviations and acronyms.

ECM- Engine Control Module

EVIR – Electronic Vehicle Inspection Report

GPS- Global Positioning System

GTC – Zonar Ground Traffic Control

HOS- Hours of Service

PIN- Personal Identification Number

RFID- Radio Frequency Identification

2020 First-time boot up Guide

The first time the 2020 is booted up, the device performs a series of internal checks and tests to ensure that it is ready for use. The 2020 checks for and loads the Organization and Asset Profiles. Organization Profiles contain all of the information associated with the organization including the settings and loaded applications in their 2020s. Asset Profiles contain all of the information on the vehicles or assets that the 2020 will interact with.

Typically, a technician performs this first-time boot up, and they can perform any necessary fixes as well as accept the license agreements of the 2020 and Navigation software.

- 1) Technician powers on 2020
- 2) The 2020 checks for a cellular connection
 - a. If no cellular connection is found, 2020 checks for existing profiles in cache
 - b. If no profiles are found, error message is displayed and the user is sent back
- 3) Once connected, the 2020 sends Org/Asset ping with the current version and date
 - a. If the version does not match what is found on the server, they are wirelessly retrieved and updated in the cache
- 4) Once the most current profiles are loaded, the 2020 checks for Navigation in the profile
 - a. If Navigation is found, a warning message is displayed, requiring the user to accept it before moving on to the next step
- 5) The technician is presented with and accepts the License Agreements
- 6) Users may log in normally

2020 Driver ID/PIN setup in GTC

In order to access the 2020 tablet and its applications, drivers must prove a Driver ID and PIN. These features are bundled in with Zonar's Ground Traffic Control system. In order to fully log in, the 2020 must have the following:

- Driver ID
 - In the GTC, the Driver ID is referred to as the Zonar Tag Number
- PIN
- Set Home location

If these are not set when they attempt to use it, the driver cannot log in to the 2020 or use any of its tools or applications.

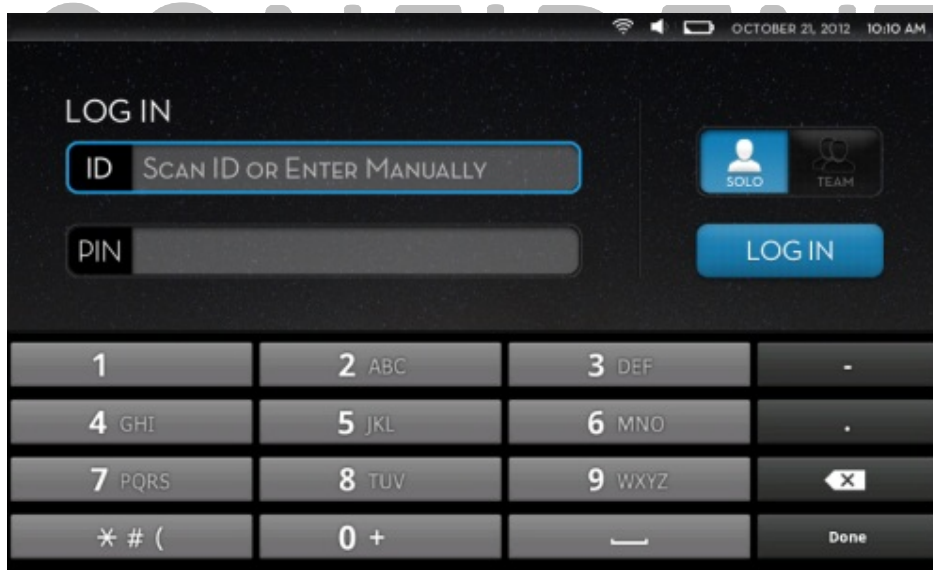
Please refer to the [Zonar GTC manual](#) for full details on setting up and maintaining GTC login information.

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2020 Driver's Login Guide

Logging in a single Driver

- 1) Power on device
- 2) 2020 automatically performs self-check
 - a. Checks for location, time, odometer, battery voltage and GPS memory
 - b. 2020 self-tests memory and battery levels
 - c. If any test fails, the driver must prepare a written log for manager/dispatcher
- 3) Driver Login Screen appears
 - a. The driver may enter their ID or scan their card
- 4) Log in with Driver ID and PIN



Logging in as a Team

- 1) After entering the PIN, the first driver selects the “Team” option
- 2) The second driver completes the login process
- 3) Once completed, the team must select an Active Driver and press Continue

Logout

- 1) On the Home Screen, press the driver tile in the upper right corner to enter the Manage Drivers screen
- 2) Press Log Out
 - a. If a team wishes to log out both members, select Log Out All Drivers
 - b. If a single member of a team wishes to log out, press the Log Out button specific to the member logging out
- 3) Press the appropriate logout button

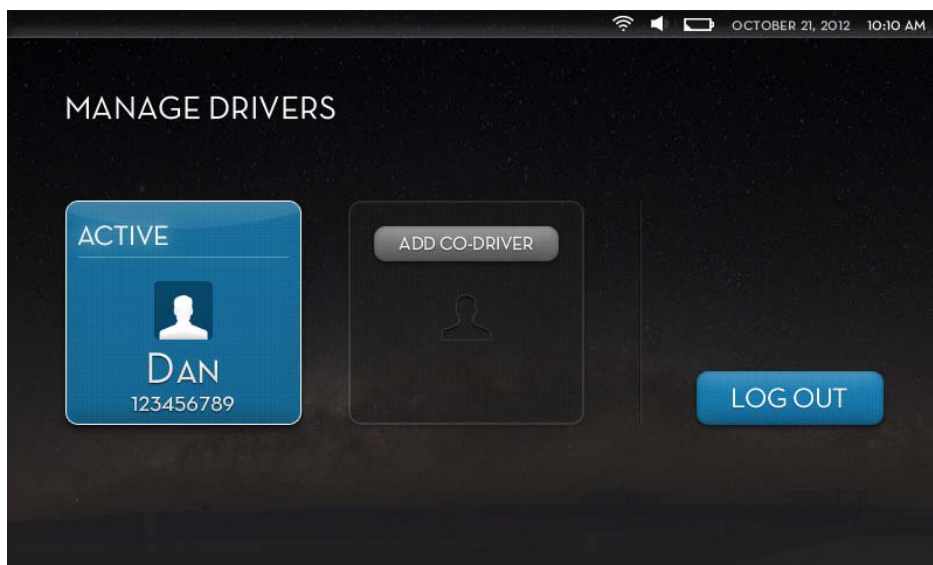
Note: Users must press the logout button twice to fully log out of the 2020.



Manage Drivers/logout screen

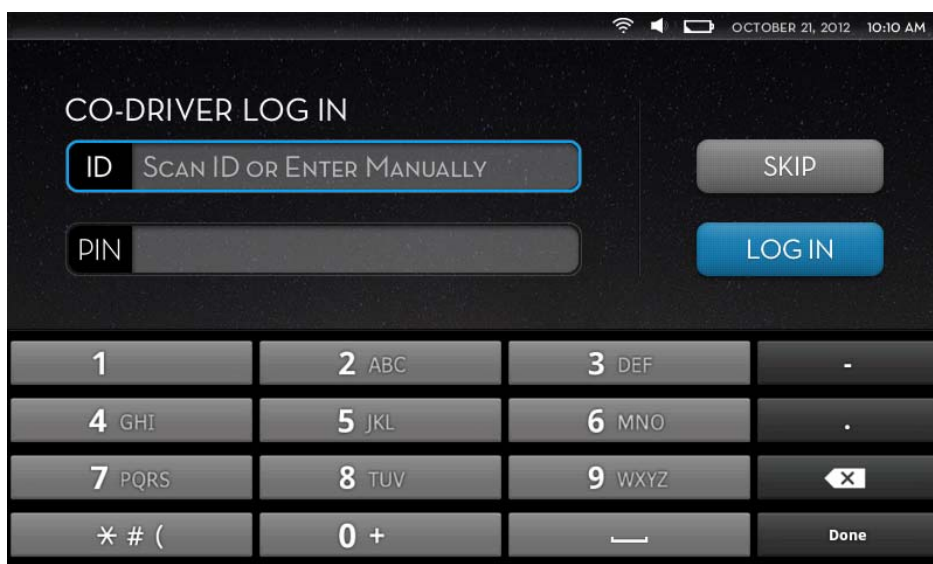
Login a Co-Driver after Primary Driver Login

- 1) On the Home Screen, press the driver button in the upper right corner to enter the Manage Drivers screen
- 2) Select Add Co-Driver



Manage drivers screen

- 3) Co-driver inputs their Driver ID and PIN









Co-driver login screen

2020 Home Screen




2020 Home Screen

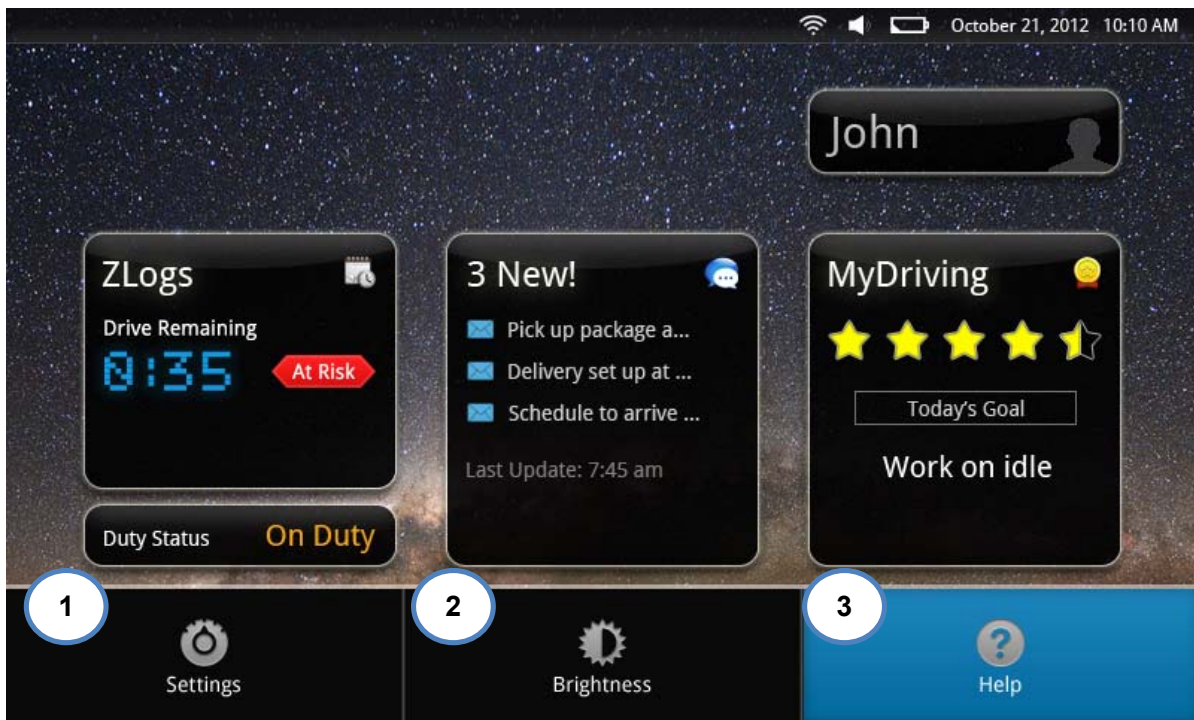
The basic home screen for the 2020 allows for quick access to the major applications and tools installed on the device.




-  - New notification display
-  - Date, time, volume and signal/battery strength
-  - Manage Drivers
-  - Status display of installed applications
-  - Duty Status
-  - Application and Tools access

2020 Hard Menu

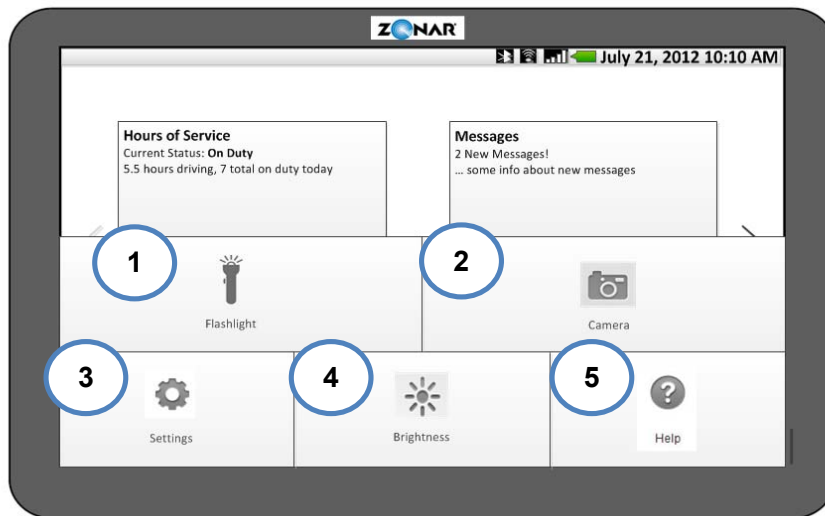
The 2020's hard menu button  allows users to access an alternative menu than that of the main home screen.

If the 2020 is docked, this menu appears when the menu button is pressed.



-  - Access 2020 settings
-  - Adjust 2020 screen brightness
-  - Access 2020 Help

If the 2020 is not docked, this menu appears when the button is pressed



1 - Activate the 2020 flashlight

2 - Activate the 2020 camera

3 - Access 2020 settings

4 - Adjust 2020 screen brightness

5 - Access 2020 Help

2020 Self-Check Guide

The 2020 performs a self-check every time it is powered on. In addition, the driver may use the Self-Check option to run the test as well through the ZLogs application. Normally, this is done when the 2020 loses its wireless signal and the 2020 prompts the user to run the self-test as soon as the signal is re-acquired and the unit is back online.

- 1) Check for enabled HOS
- 2) Test for connection to Zonar V2J/V3
- 3) GPS Unit tests
 - a. Memory check
 - i. If available memory is equal to or greater than 95%, the 2020 reports a failure
 1. On failure, the driver must prepare a paper log
 - b. Voltage check
 - i. If the CMV battery voltage is equal to or greater than 11.8 volts, the 2020 reports a failure
 1. On failure, the driver must prepare a paper log
 - c. Clock check
 - i. If the time does not update successfully, the 2020 reports a failure
 1. On failure, the driver must prepare a paper log
 - d. GPS check
 - i. If no latitude/longitude data is returned, the 2020 reports a failure
 1. On failure, the driver is notified to verify location at next stop
 - a. See ZLogs application for more information
 - e. Odometer value
 - i. If ECM odometer mileage cannot be found, the 2020 reports a failure.
 1. On failure, driver is prompted to enter mileage at next duty status change
 - a. See ZLogs application for more information
- 4) 2020 Unit Tests

- a.** 2020 Memory
 - i.** If available memory is equal to or greater than 95%, the 2020 reports a failure
 - b.** 2020 Battery
 - i.** If remaining battery is less than 10%, the 2020 reports a failure
- 5) GPS Unit**
- a.** If no response is found, test is logged as a failure
 - b.** If there is a response, a self-test analysis is performed, logging success or failure

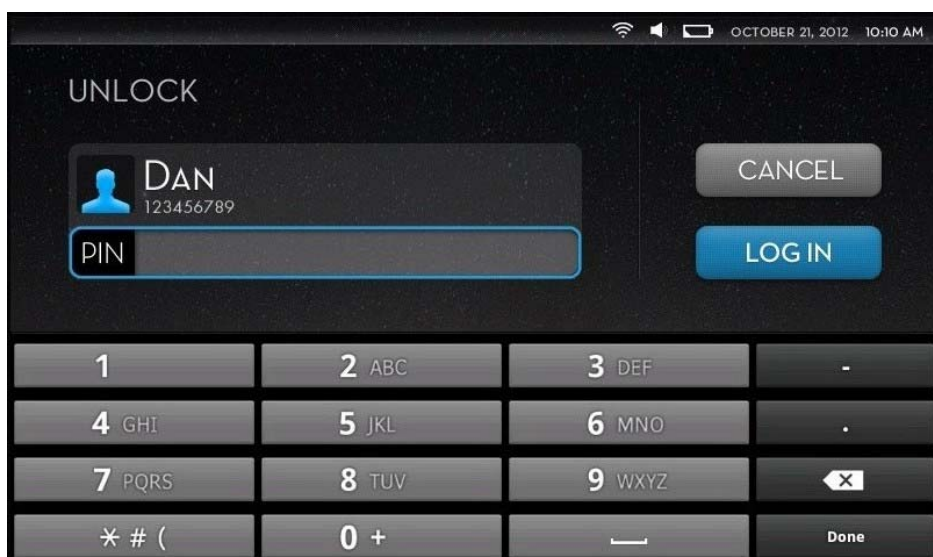
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2020 Sleep Mode

When the 2020 is undocked, or docked on a vehicle without power, the device times out and enters a sleep mode after a certain period of time to improve driver management and device security. By default, this period is 2 minutes, but this may be adjusted to 30 seconds, 1 minute, 10 minutes or 30 minutes.

To exit from sleep mode, a user presses the Power button.

When coming out of sleep mode, a user must choose which driver to log in as, and enter the appropriate PIN.

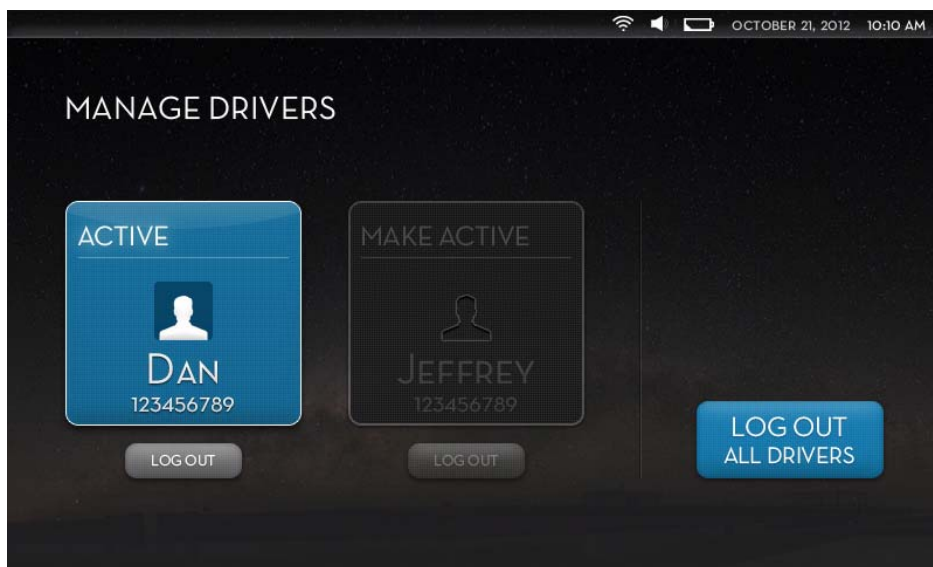


Unlock screen

Additionally, the 2020 automatically logs a driver off after a set period of inactive time. By default, the time is 8 days, but the value be adjusted from 0 to 30 days.

Change Active Driver

- 1) On the Home Screen, press the driver tile in the upper right corner
- 2) Highlight which driver is to be made active
- 3) Select Make Active



Manage Driver screen






Note: When a team is switching who is driving, they must change the Active Driver in the 2020. One of the users accesses the Manage Drivers screen from the Home Screen. Pressing Make Active on the non-active driver highlights that driver and shifts their status to active. The 2020 then makes this the active driver for purposes of logging Hours of Service and Driver Performance.

2020 Built-in Applications

The 2020 unit carries a number of stock applications that exist on every tablet. Users access the built-in applications through the main Home screen of the 2020 via the Tools section.



Tools Menu

-  - Calculator
-  - Gallery
-  - Camera/Camcorder
-  - Clock/Alarm
-  - Settings



- Help

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Using Applications

A driver may access and use installed applications through the Home screen with one of two methods:








Users may start an application by either pressing the large status icon of the installed applications (circled in blue) or through the home screen's tool bar (yellow). Both lead drivers to the same application.

Updating Applications

In order to maintain the most up-to-date versions of installed applications, the 2020 automatically checks for and, if able, downloads updates to loaded applications. While each 2020's load of installed applications may vary, the process used to update them remains the same between applications.

- 1) Application versions on the 2020 are compared to the versions on the manifest
 - a. If the application versions match, the process ends successfully
- 2) If necessary updates are found, the 2020 checks for WiFi connectivity
- 3) If WiFi connectivity is found:
 - a. 2020 notifies the user of pending updates and asks to proceed with the download
 - i. If the approval is given to proceed, the 2020 downloads the updates immediately
 - ii. If the user does not allow the download, and the application is non-critical, the 2020 disables the application until it is fully updated
 - iii. If it is a critical application, the application is disabled until updated
 1. **NOTE:** If the update is smaller than 1mb in size, the 2020 downloads and installs the update via cellular network if no WiFi connection is available
 - b. Once downloaded, applications are installed and applied automatically
- 4) If WiFi connectivity cannot be found:
 - a. 2020 notifies the user of pending updates available for download
 - b. If it is a non-critical update, the application is disabled until fully updated.
 - c. If it is a critical application, it is disabled until updated
 - i. **NOTE:** If the update is smaller than 1mb in size, the 2020 downloads and applies the update over cellular signal if no WiFi connection is available
- 5) Once all application versions are updated, the user may use their applications, unless disabled by the 2020 for uninstalled updates

2020 Battery/Signal Display Levels

	Battery level
	WiFi connected
	No WiFi connection
	No GPS connection
	No cellular connection

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Docking Station

The 2020 docking station fits into the vehicle and serves as a home for the tablet. From the dock, the 2020 tablet is charged and works to both charge the tablet while not in use, but also as a wireless communication hub.



2020 Docking Station (with docked 2020)

When docked, information obtained during an EVIR scan wirelessly transmits to Zonar's backend server for collection and analysis.

Docking and Undocking

To dock the 2020 tablet:

- Place the bottom of the tablet in the dock



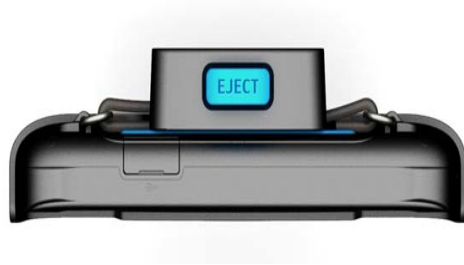
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2020 Docking procedure

- Push forward until the tablet fully locks and latches in the docking station

To undock the 2020 tablet:

- Press the Eject button



Eject Button at top of Docking Station

- Remove the tablet from the docking station

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Strap Installation

The 2020 tablet comes with an additional strap accessory to securely carry the tablet while out of the docking station.

To install the strap, users attach it to the back of the tablet with the four provided screws.



Screw hole locations



Successfully attached strap

2020 Unit Settings

The 2020 unit makes these settings visible and available for regular users.

- Wireless & Networks
 - Airplane mode
 - Wi-Fi
 - Wi-Fi settings
 - Bluetooth
 - Bluetooth settings
- Sounds
 - General
 - Silent Mode
 - Vibrate
 - Volume
 - Notifications
 - Notification ringtone
 - Feedback
 - Audible touch tones
 - Audible selection
 - Screen lock sounds
 - Haptic feedback
- Display
 - Brightness
 - Auto-rotate screen
 - Animations

- Screen timeout
- Backlight
 - Button backlight
- Location & Security
 - My Location
 - Use wireless networks
 - Use GPS satellites
 - SIM Card lock
 - Set up SIM card lock
 - Passwords
 - Visible passwords
 - Device Administration
 - Select device administrators
 - Credential Storage
 - Use secure credentials
 - Install from SD card
 - Set password
 - Clear storage
- Applications
 - Storage use
 - Battery use
- Accounts & Sync
 - Background data
 - Auto-sync
 - Add account

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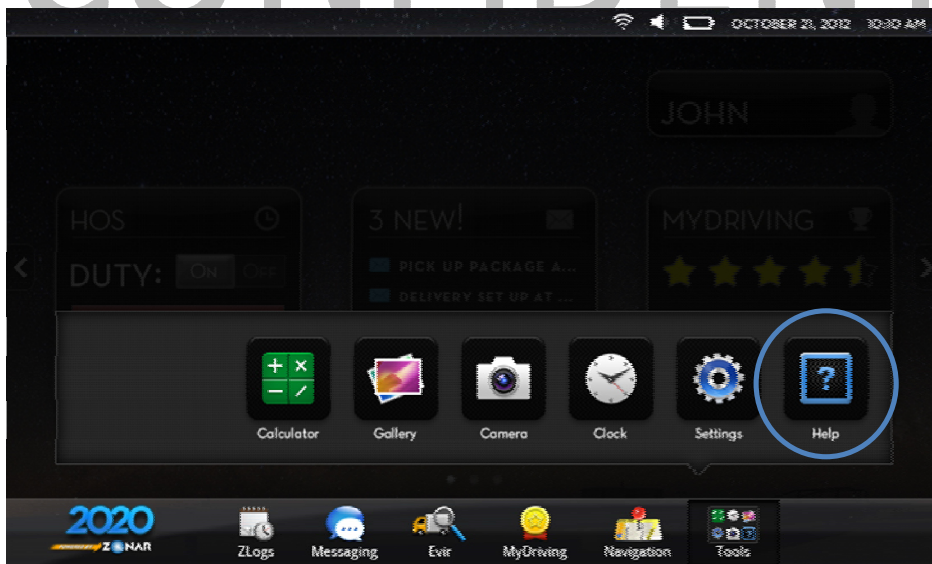
- Privacy
 - Factory data reset
- Storage
 - SD Card
 - Total space
 - Available space
 - Unmount SD card
 - Erase SD card
 - Internal Storage
 - Available space
- Language & Keyboard
 - Language Settings
 - Select Language
 - English, French, Spanish
 - User Dictionary
 - Keyboard Settings
 - Android Keyboard
- Voice Input & Output
 - Text-to-speech settings
- Accessibility
 - Accessibility
 - Power Button ends call
- Date & Time
 - Automatic
 - Use 24-hour format
 - Select date format

- About Phone
 - Status
 - Battery use
 - Legal information
 - Model information
 - Android version
 - Baseband version
 - Kernel version
 - Build number

Accessing Help

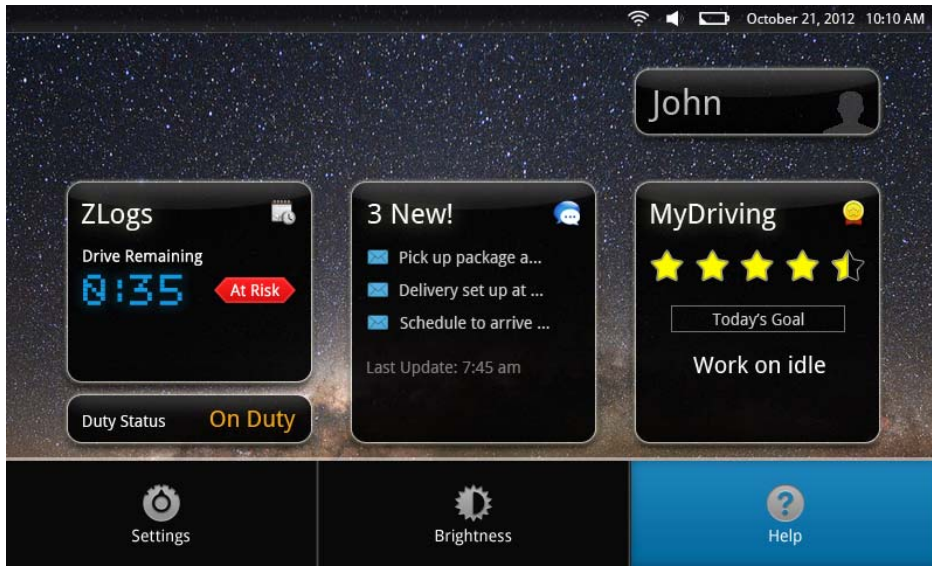
If a driver needs assistance with the 2020 or any of the applications loaded onto it, they may access Help documents through the 2020 home screen.

- At the home screen, driver selects Tools
- Driver selects Help



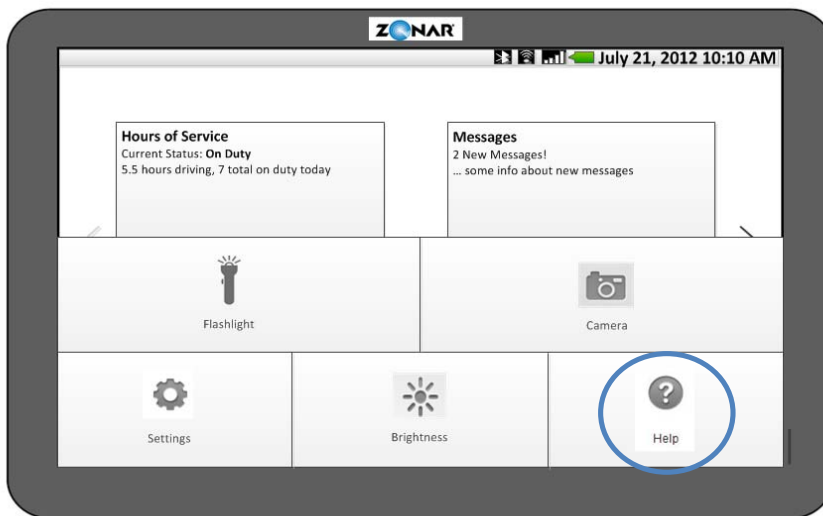
Help access via soft Tools button

- Additionally, the user can use the Menu hard button on the 2020 device to call up a Help option as well
 - If the 2020 is docked in the docking station, the user will see this help menu



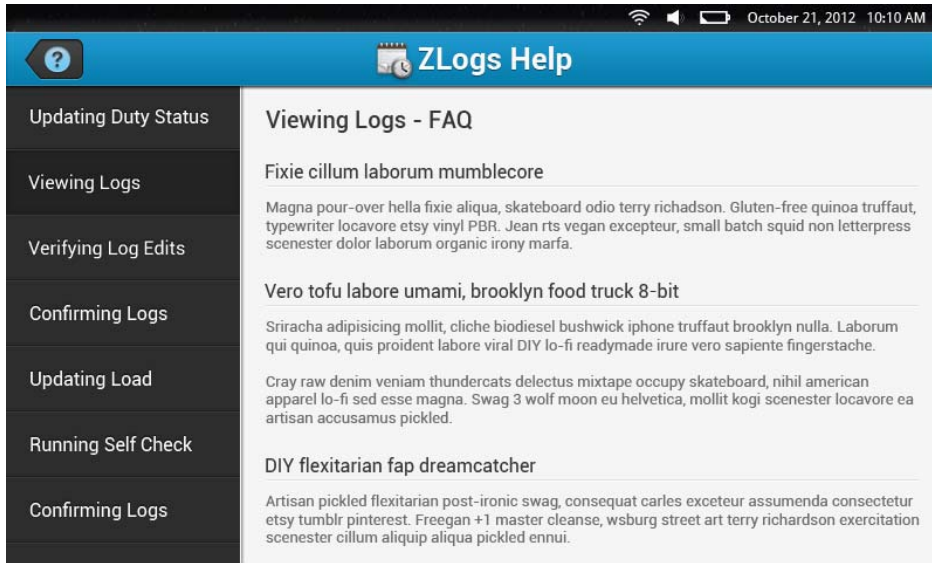
Help access via hard Menu button when 2020 is docked

- If the 2020 is undocked, help is located on this menu



Help access via hard Menu button when 2020 is undocked

- Driver selects appropriate help document from the sidebar
 - Help documents are organized by application
 - Once an application is chosen, specific topics can be selected



Help screen

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Caring for the 2020

- Avoid dropping the 2020 and operating it in high-shock and high-vibration environments
- Do not expose the 2020 to water
 - Contact with water can cause the 2020 to malfunction
- Do not store the 2020 where prolonged exposure to extreme temperatures can occur
 - Prolonged exposure can permanently damage the 2020
- Never use a hard or sharp object to operate the 2020 touchscreen
 - Doing so may damage the touchscreen and leave it nonfunctional

Cleaning the 2020

Notice: Avoid chemical cleaners and solvents that can damage plastic components.

1. Clean the outer casing of the 2020 (not the touchscreen) using a cloth dampened with a mild detergent solution
2. Wipe the device dry with a clean, dry cloth

Cleaning the Touchscreen

1. Use a soft, clean, lint-free cloth
2. If necessary, use water, isopropyl alcohol or eyeglass lens cleaner
3. Apply the liquid to the cloth
4. Gently wipe the 2020 screen with the cloth

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Troubleshooting

Occasionally, a driver may need to address minor technical issues with the 2020, or adjust settings to ensure that the device is receiving signals and operating properly. To use this guide, drivers simply follow the button presses that are in bold, and use the arrows to move from selection to selection to find the appropriate settings and options to correct any incorrect device settings.

My device is not acquiring a signal.

- Ensure that WiFi is enabled



- Make sure it is checked
- Ensure that GPS and Wireless satellites are used

- **Tools**  → **Settings**  → **Location & Security** → **Use GPS Satellites**

- **Tools**  → **Settings**  → **Location & Security** → **Use Wireless Networks**



- Make sure both boxes are checked

My device is not charging in my vehicle.

- Ensure the 2020 tablet is properly loaded into the docking station
- Check the fuse in the V2J/V3
- Re-seat the 2020 in the docking station
- The 2020 can only charge between 32° F and 113° F (between 0° C and 45° C)
 - If the temperature is outside of this range, it may not charge properly

My 2020 runs out of battery power very quickly.

- To maximize the time between charges, turn down the backlight
 - Turn down the brightness of the 2020


- **Tools**  → **Settings**  → **Display** → **Brightness**

- Turn off the button backlight

- **Tools**  → **Settings**  → **Backlight** → **Button Backlight**

My screen is difficult to read.

- Adjust the 2020's screen brightness

- **Tools**  → **Settings**  → **Display** → **Brightness**

- Adjust the 2020's button backlights



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[Warranty](#)
LIMITED WARRANTY

Zonar warrants that the Hardware provided under this agreement is free from all material defects in workmanship under normal use and service. Zonar's warranty period for its Hardware is as follows:

V3 - 5 Years

EVIR™ - 3 Years

All Other Hardware - 1 Year

The above warranty periods run from the date of shipment. Provided that the Hardware is used and handled as intended, Zonar will replace any failed or functionally impaired Hardware with equivalent Hardware in terms of performance and functionality.

This warranty does not apply to any Hardware that has been misused, altered, willfully abused or that has been damaged due to improper installation by the customer. † Hardware installations must follow Zonar's equipment specific installation guidelines. † If product returned is determined to be damaged due to any of the aforementioned circumstances, the Customer will be charged the price of a refurbished unit plus shipping and handling.

CUSTOMER'S SOLE AND EXCLUSIVE REMEDY AND ZONAR'S ENTIRE OBLIGATION UNDER THESE LIMITED WARRANTIES for defective equipment is the repair and replacement of the equipment free of charge by Zonar. Zonar shall not be liable to Customer or any third party for any general, special, punitive, incidental, indirect or consequential damages, or any lost profits or business, arising out of Zonar's Subscription Agreement.

Important Notices

Important Notice

It is the Owner's sole responsibility to install and use the Zonar products in a manner that will not cause accidents, personal injury or property damage. For the purposes of this notice, "Owner", "you" and "your" means the party (including any person authorized by that party to use and/or install the Product) that has either: (a) purchased the Product; or (b) leased the Product from Zonar Systems, Inc or its related companies. The Owner of this product is solely responsible for observing safe driving practices. The choice, location, and installation of all components of the Product is critical. If installation is not correct, the Product may not perform at its designed potential or specifications. If in doubt, consult your vehicle's manufacturer.



Lithium-Ion Battery Warning

This product contains a lithium-ion battery. To prevent the possibility of personal injury or product damage caused by battery exposure to extreme heat, remove the device from the vehicle when exiting or store it out of direct sunlight.



Distracted Driving Warning

Do not use this device while the vehicle is in motion or in any other driving situation. Using the device while driving can create dangerous situations where the driver may not be focused on the road or task at hand.



FCC Compliance Statement (Part 15.19) IC Compliance Statement (RSS-210)

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada (IC). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.



Warning: (Part 15.21)

Changes or modifications not expressly approved by Zonar Systems could void the user's authority to operate the equipment.



Industry Canada Compliance Statements

"This device has been designed to operate with an antenna having a maximum gain of [3.3] dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is [50] ohms."

"To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication."

"The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website, www.hcsc.gc.ca/rpb."

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/ TV technician for help.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be providing with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

SAR Value: **0.188** W/kg

Canada, Industry Canada (IC) Notices

This Class B digital apparatus complies with Canadian ICES-003 and RSS-210.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Radio Frequency (RF) Exposure Information

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has been evaluated for and shown compliant with the IC Specific Absorption Rate (“SAR”) limits when installed in specific host products operated in portable exposure conditions.

Canada, avis d'Industry Canada (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-210. Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

Informations concernant l'exposition aux fréquences radio (RF)

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce périphérique a été évalué et démontré conforme aux limites SAR (Specific Absorption Rate – Taux d'absorption spécifique) d'IC lorsqu'il est installé dans des produits hôtes particuliers qui fonctionnent dans des conditions d'exposition à des appareils portables.