



M100 Smart Glasses

Product Guide

Enterprise Edition

English

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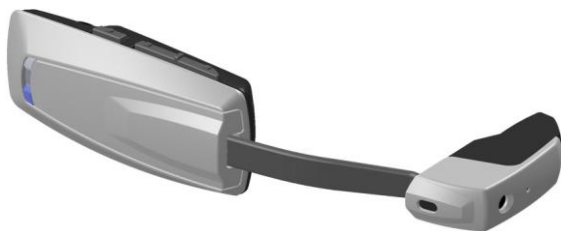
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Read the Safety and Warranty information before proceeding.

1. Introduction

Vuzix M100 Smart Glasses serves up the digital world before your eye, offering unprecedented “hands free” access to information, data collection and more.



The Vuzix M100 Smart Glasses is an Android-based wearable computer, enhanced with a monocular display, speaker, and a high definition camera able to capture video and still image pictures. It can be used as a stand-alone device, paired to work co-operatively with an Android device, or to connect wirelessly to other devices and the Internet.

Product Evolution

Smart Glasses are an emerging technology with the Vuzix M100 being the first on the market, breaking new ground for others to follow. Unlike an established technology, the M100 Smart Glasses are evolving and improving based upon user feedback and continuing engineering development. They have been designed with a high degree of upgradeability built-in. Not only can you install new end-user software, you can also update the M100's firmware to enable new capabilities.

This product Guide has been written based upon the M100 Smart Glasses features and capabilities at a given point in time. As the product evolves, new features, capabilities, and software may no longer be accurately reflected in this document. Check the Vuzix website for periodic updates and releases of new documentation, available at www.vuzix.com/downloads.

Note: You can always get the latest manuals and documentation at the Vuzix website www.vuzix.com/downloads.

About this Product Guide

This Product Guide provides detailed information on your M100 Smart Glasses and instructions on its components and usage. Additional information may be provided in related documents available for download from www.vuzix.com/downloads.

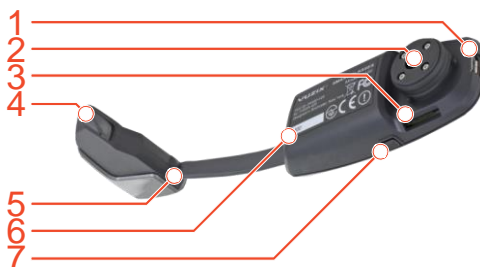
2. M100 at a Glance

Below is a brief description of the items included in a typical M100 Smart Glasses Enterprise package and significant components referenced throughout this Guide.

The M100 Smart Glasses are a global product undergoing continual improvement. The following items are those included in the standard M100 Enterprise package at the time of this Guide's creation. Local demands and preferences as well as product changes themselves may influence the specific items included in your package. The contents of the M100 Smart Glasses package may change at any time without notice.

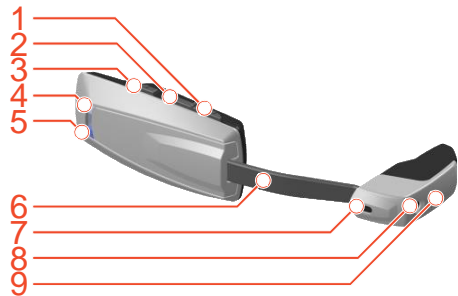
M100 Smart Glasses – back

1. **Power/Data Port:** Micro USB port for charging battery and loading firmware updates and other software.
2. **Speaker:** Speaker and mounting assembly base.
3. **Memory Card Slot:** Micro SD Card slot for removable memory.
4. **Display Screen:** Full color display screen.
5. **Display/Camera Head:** Adjusts the tilt of the assembly
6. **Display Arm:** Bends and extends to enable display positioning.
7. **Power Button:** Power ON/OFF and Sleep.



M100 Smart Glasses – front

1. **Front Button:** Moves the on-screen selection forward (Short Press)/Opens menu (Long Press).
2. **Center Button:** Moves the on-screen selection backward (Short Press)/Go home (Long Press).
3. **Rear Button:** Selects objects displayed on-screen in the Smart Glasses (Short Press)/Go back (Long Press).
4. **White Power Indicator:** Indicates power and charge status (Solid white – full charge/ 1 intermittent blink – charging/ 3 fast blinks – nearly 0 charge and will not boot due to lack of charge).
5. **Blue Notification Indicator:** Provides status notification.
6. **Display Arm:** Bends and extends in and out to enable display positioning.
7. **Gesture Sensor:** Input sensor for gesture control (**Located between (4) and (5) on generation 1 M100**).
8. **Camera:** High definition camera for video and still images.
9. **Red LED Camera Indicator:** Indicates that the camera is in operation.



Accessories

Safety Glasses: M100 mounts on left or right side using one of the Safety Glasses Mounting Brackets provided.



Safety Glasses Mounting Bracket: Two brackets, identified with “R” and “L” indicators, are provided; one for mounting the M100 for right-eye viewing and the other for left-eye viewing.



Headband: An adjustable headband enables left or right eye viewing for applications where safety glasses are not used.



Ear Locks: The included ear locks are designed for added comfort and stability when using the safety glasses mounting option.



Speaker Cones: Two optional speaker cones are provided in a small and large size. They slip over the ridge on the M100's speaker to channel sound, increasing audio quality.



PowerPak 3800: This rechargeable battery enables four to five times the run time of the internal M100 battery. It connects to the M100's Power/Data port using the provided USB cable (note the protective film, which can be removed).



USB Cable: This USB cable connects the M100 to an available USB power source to charge its internal battery and to the PowerPak 3800 to recharge it. This cable is also used for updating the M100 firmware when connected to a Windows PC.



Travel Case: This semi-rigid case and its foam insert provide a convenient storage location for your M100 Smart Glasses and its accessories as well as offer protection for the M100 when travelling.



3. Hardware Setup

Before Using the M100

The M100 Smart Glasses and the PowerPak 3800 should be fully charged before being used for the first time.

Charging

The M100 Smart Glasses are equipped with an internal rechargeable battery. In respect of weight considerations, a battery suitable for the most common tasks and needs has been provided. Certain activities may place additional power demands on the M100, reducing its internal battery charge. An external battery, the PowerPak 3800 or a similar battery, can be used to extend the M100's running time.

The M100 Smart Glasses and the PowerPak 3800 can be charged from any USB power source providing a minimum of 500mA. Recharge time can be dramatically reduced by utilizing a 1000mA or greater power source.

- Connect the USB cable to a USB power adapter or USB port on a computer and then plug the smaller USB connector into the micro-USB port on the M100 or PowerPak 3800.

The white Power Indicator light on the M100 will flash while the device is charging and remain lit when fully charged. The light will blink intermittently while charging and blink rapidly 3 times when the device is at a power level that is too low for the M100 to turn on.

If the M100 Smart Glasses are connected to a power source, but very low on charge, the Power Indicator will flash three times every five seconds until a charge sufficient for booting up has been achieved. It will continue to flash every two seconds while charging.

Note: While the Power Indicator is flashing three times, the M100 has insufficient charge to turn on.

Mounting Options

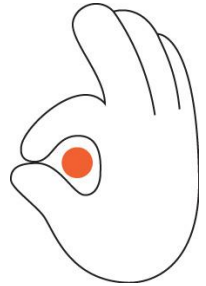
Two mounting options are provided – an over-the-head strap (headband) and safety glasses. Both mounting systems accommodate either right or left eye viewing.



Left or Right Eye?

Prior to mounting your M100 on one of the provided systems, you'll need to choose to use your left or right eye. The majority of people, about 66%, are right eye dominant, meaning they prefer visual input from their right eye. But which eye is right for you? The following exercise will help you determine your eye dominance.

- Hold your hand out at arm's length and form a circle with your thumb and forefinger.
- With both eyes open, align the circle with a small distant object, such as a doorknob.
- Without moving your hand, look through one eye and then the other.



While alternating eyes, the object will remain centered in your thumb/forefinger circle when viewed through your dominant eye and disappear or move when viewed through the other eye.

Note: The M100 senses its orientation and automatically “flips” the displayed image whether being worn in the left or right eye.

Headband Mounting

The headband attaches directly to the M100 Smart Glasses with its mounting ring snapping over the M100's speaker. The optional speaker cone stretches over the raised edge of the mounting ring to complete the assembly.

1. Speaker Cone
2. Mounting Bracket
3. Speaker



To mount the M100 Smart Glasses on the headband:

- Press the M100 universal ring mount (3) into the mount ring (2) of the headband.
- Slide the speaker cone (1) onto the backside of the headband ring mount (optional).



Caution: To prevent damage to your device, when removing the headband rotate it around the speaker while pulling.

Note: The headband strap slides in and out of the mounting assembly to accommodate a secure fit over your head and the M100 assembly swivels around the speaker to adjust the display angle.

Note: Swiveling the headband around the speaker a full 180 degrees orients the M100 Smart Glasses from right to left eye viewing or vice-versa.

Safety Glasses Mounting

Safety glasses and two mounting brackets are provided with the M100 Smart Glasses. Each is marked with an “L” or “R” to indicate which side of the safety glasses it fits on.



To mount the M100 Smart Glasses and ear hooks on the safety glasses:



- Slide the adapter onto the safety glass stem, with the mounting ring to the rear. ①
- Snap the M100's speaker into the mounting ring. ②

- Rotate the display arm down and clip it into the adapter's retainer clip. ②
- Slide both the left and right ear hooks onto the stem far enough to secure the glasses when worn. ③
- Finally, attach the rubber speaker cone over the lip of the mounting ring (optional).

The arm tilt of the safety glasses is adjustable (as indicated in the below picture). Most users find that the M100 is in the best position when both arms have been adjusted down to the lowest setting, and the M100 is positioned higher in your line of sight.

Please make sure that both arms are in approximately the same position, to ensure that the M100 is level and comfortable.



Note: The M100 has optional eyeglass frames available (shown below) complete with prescription inserts for those users that want eyeglass form factors or need prescription lenses for distance viewing as an alternative to the headband mounting option. See www.vuzix.com for more details.



Display Adjustment

Positioning of the M100's display is crucial to its effective use. It can be worn above, below or directly in your line of sight, all of which are enabled through adjusting the display arm and its tilting mechanism.

***Note:** The M100 Smart Glasses can be worn with or without prescription eyeglasses.*

***Note:** The following adjustments relate generally to the headband mounting option. However, some of the same principles and philosophies apply to other M100 mounting options.*



The display can be adjusted in three ways; the length of the arm, the shape of the arm and the angle of the display assembly. The arm slides in and out of the main body, allowing for approximately one inch of adjustment. The display arm is also flexible; enabling it to be bent with gentle curves for exact positioning. And lastly, the display assembly or head can be tilted up 15° or down 15° for approximately 30 degrees total to provide accurate alignment in multiple viewing positions.

***Note:** Many M100 users find an “S” bend, as shown in the above middle illustration, to be a good starting point in finding the position that works best for them.*

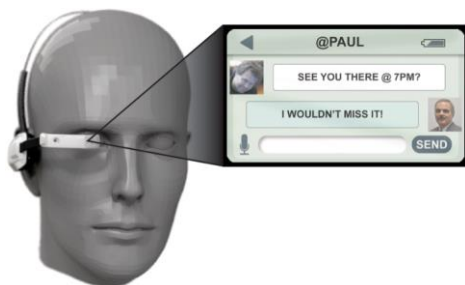
The following instructions illustrate positioning the M100 using the headband for right-eye viewing. The same general process can be employed when using the safety glasses and for either right or left-eye viewing.

- Make an “S” bend in the display arm, as illustrated above. This will help position the display in front of your eye and at the correct angle.
- Clip the M100’s speaker into the mounting ring of the headband.
- Turn on your M100 by pressing the power button, the single button along the bottom edge of the M100’s main body.
- Center the display in front of your eye, tilting it as required to achieve a full view of the display.
- Once centered in front of your eye, slide the display arm back to position the display approximately 1 inch (~25 mm) away from your eye.

You can position the display further from your eye but doing so will reduce the image size.

Finding the correct position may require some trial and error adjustments, possibly repeating some of the above steps multiple times.

When correctly positioned you should have a clear view of the entire display area, surrounded by a black border.



The image is focused at approximately 10 feet (3 meters) so if you wear bifocal prescription glasses, position the display over the distant viewing area.

PowerPak 3800

The M100 Smart Glasses contains an internal battery able to deliver 1 to 2 hours of operation under normal use. Some functions such as camera operation and wireless

connections consume additional power resulting in decreased battery life. The Vuzix PowerPak 3800, an external 3800mAh rechargeable battery is included to extend the M100 operating time by up to 5 times.

1. USB Port – power to Smart Glasses
2. LED Flashlight
3. Micro USB – power to battery pack
4. Power level indicator
5. Power On/Off



To use the PowerPak 3800 plug the provided USB cable into the micro USB port of the M100 Smart Glasses. Plug the full sized USB connector into the PowerPak and then press the power button on the PowerPak. The blue LEDs indicate the power level of the Battery.

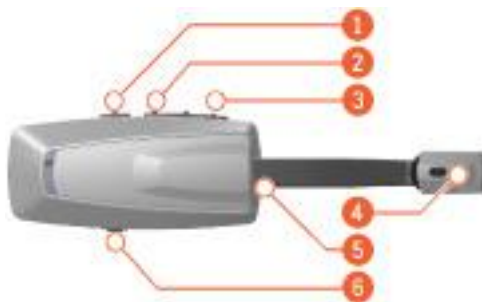
Long pressing the power button on the PowerPak 3800 will turn on the LED flashlight. This is especially useful if you are utilizing the M100 in dark areas and need additional light to engage in your task.

4. Smart Glasses Tour

User Interface Controls

The M100 Smart Glasses support multiple user interface methods including hardware buttons, voice navigation, gesturing, and remote user interface software running on a paired Partner Device.

1. Rear Button
2. Center Button
3. Front Button
4. Gesture Sensor
5. Microphone
6. On/Off Power Button



Buttons

The hardware buttons function similarly to those on other Android devices. In many instances, a quick “*Short Press*” and a “*Long Press*,” holding the button down for a longer period, may be interpreted differently by different apps.

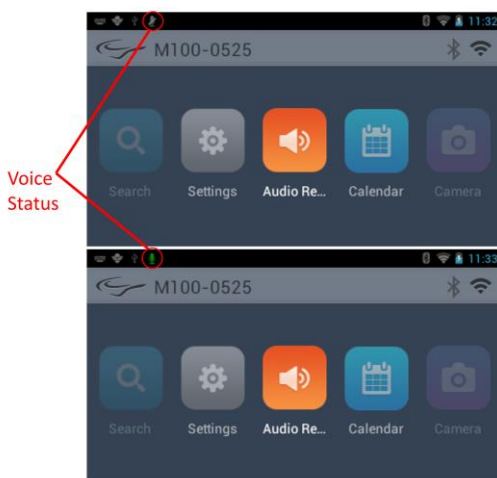
Button	Action	Result
Rear Button (1)	Short Press	Android's standard SELECT function
	Long Press	Android's standard BACK function
Center Button (2)	Short Press	Move selection BACK
	Long Press	Android's standard HOME function
Front Button (3)	Short Press	Move selection FORWARD
	Long Press	Android's standard MENU function
On/Off Power Button (6)	Short Press	Puts M100 in sleep mode
	Long Press	Open power menu to turn off the M100 or toggle Airplane mode
	Long Press (10 Seconds)	Force complete shutdown of the M100

Voice Navigation

Voice navigation is supported by the Smart Glasses when used in conjunction with compatible voice command enabled software. A microphone located behind the display arm picks up voice commands.

If voice control is turned on the Mic icon is present on the status bar of the M100, and the M100 is always listening for the 'Voice On' command. If you say 'Voice On', the Mic will go from grey to green showing the M100 is now listening for a voice command. By default, after 15 seconds of not hearing any voice commands, the Mic icon will return to grey, and the M100 will stop listening for any command

other than 'Voice On' and wait to be re-enabled. The 15 second default timeout can be adjusted through the Settings application under Voice. The range is in seconds with zero (0) being always listening. The list of recognized voice commands is growing constantly and may vary from one program to another. Examples of some basic commands recognized by the pre-installed M100 software are provided below. See the Vuzix website for additional commands and other software documentation for 3rd party apps.



Voice on – enable voice control (The M100 is always listening for this unless voice control is selected to be turned off)

Voice off – disable voice control (automatically disables after 20seconds with no voice action)

Voice help – displays a list of possible words the current application understands for about 5 seconds

Scroll left – scroll to the left

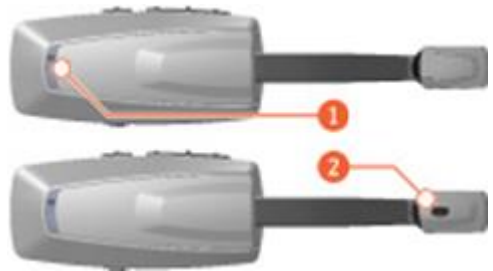
Scroll right – scroll to the right
Stop/Halt – stop scroll
Move left – move left one icon
Move right – move right one icon
Select [1-5] – selects the corresponding item
Take Picture – opens the Camera app
Show menu – shows menu options
Go back – back one level in app
Go home – return to launcher
Current Time – opens the Clock app

Note: Most applications that have voice enabled also support the 'Voice Help' command. Say 'Voice Help' to get a list of available voice commands.

Gesture Control

The MI00 Smart Glasses support gesture control, recognizing forward/back, up/down and in/out hand gestures performed in close proximity to its gesture sensor.

The gesture sensor in your MI00 may be located in either of two locations, depending upon its date of manufacture. Both function exactly the same and are simply placed in different locations on the MI00. Model 1 (no opening in side of display module), has its gesture sensor located in the main body of the MI00, between the indicator lights. Model 2 has an opening in the side of the display module where its gesture sensor is located.

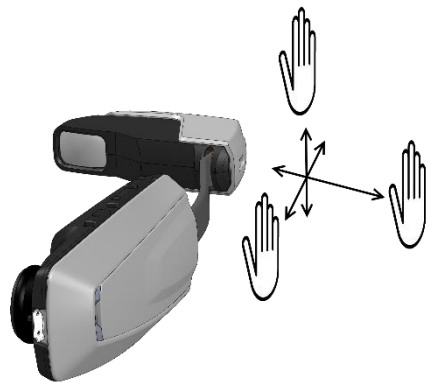
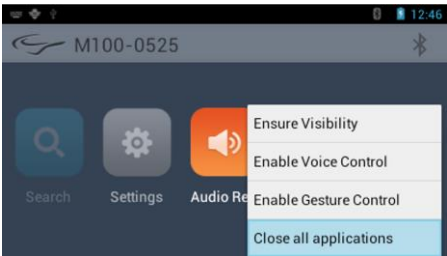


The gesture sensor is activated in the Settings menu of the MI00. Under settings, scroll down to “Gesture Settings” and select it. Then, select “Calibrate Gesture

Sensor.” After that, toggle “Use gesture sensor” to ON. The gesture sensor is now active.

Note: A “long press” of the front M100 button from the M100 desktop brings up a menu that allows the user to quickly Disable or Enable Voice or Gesture Control, Ensure (Bluetooth) Visibility, or Close Recent Apps.

The pictured gestures performed to the side of the M100 correspond to the following commands:



Gesture	Command
Back to Front	Right/Next
Front to Back	Left/Previous
Far to Near (perpendicular to your line of vision)	Android Standard Select
Near to Far	Back
Below to Above	Up
Above to Below	Down

For example sliding your hand first close (in) and then away (out) from the sensor is a standard Android BACK command. Sliding your hand from a far position to close is a standard Android SELECT command.

Operating Methods

M100 Smart Glasses can be used independently or in conjunction with a partner Android device such as a smartphone or tablet. They can also be used with or without a Bluetooth connection to other devices or a Wi-Fi connection to the Internet.



Independent Use

When used independently, Android apps are loaded directly onto the M100 Smart Glasses and run from there. This mode of operation provides mobility advantages and allows the user to operate the device using the provided buttons on the M100, voice navigation and/or gesture control. Some operations, such as those requiring keyboard input, may be unavailable in this operating environment.

Partner Device Use

Paired with a Partner Device is the preferred and most capable method of M100 operation. The M100 Smart Glasses are designed to be paired with an Android device, employing the smart phone or tablet as the primary interface to the M100. To do this you will need to install the Smart Glasses Manager app which is available for download at www.vuzix.com/downloads. The manager app provides a more traditional tap and drag style of interface as well as support for a virtual keyboard and an interactive interface for M100 native applications. An iOS partner app will be available soon to allow pairing with iPhones and iPads.

M100 Software

The M100 includes a number of Smart Glasses specific apps, some of which are pre-installed on the M100 and others that are downloaded to Android Partner Devices.

Smart Glasses Manager

Smart Glasses Manager installs on a Partner Device. It is available for Android devices and can be obtained from www.vuzix.com/downloads.



Smart Glasses Manager provides a traditional tap and drag style of interface where a facsimile of the Smart Glasses screen is displayed on the Partner Device. Using the Partner Device's screen you can scroll through the menus of apps installed on your M100 as well as launch and manage them. A virtual keyboard, on the Partner Device screen, enables you to provide keyboard input.

Vuzix App Store

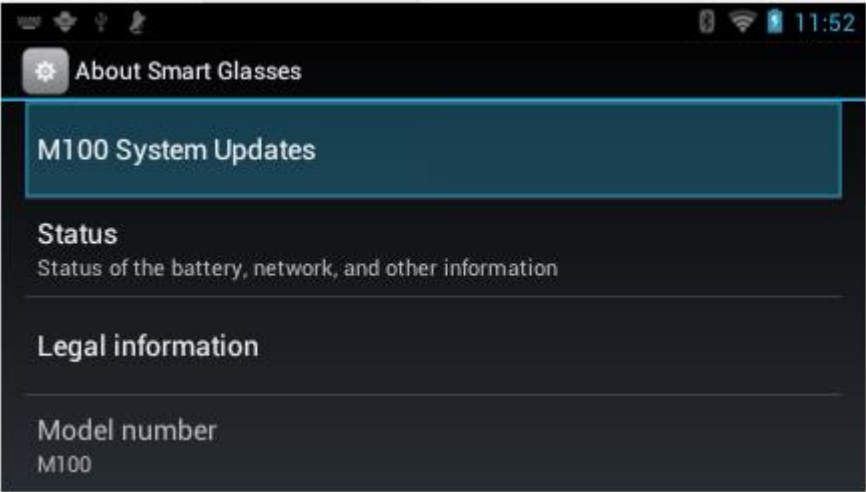
A Vuzix App Store app is available for loading on Android based Partner Devices. This enables access to an app store featuring apps designed for and tuned to take advantages of the M100 Smart Glasses unique features and capabilities.

M100 System File Manager

The M100 System File Manager is available at www.vuzix.com/downloads. Among other things, this program enables users to easily install and uninstall apps onto the M100 from their Windows based PC. Documentation describing use and functionality of the System File Manager is packaged with the download.

Over the Air Updates

Operating system updates are available Over the Air. Accessing OTA Updates requires your M100 to be connected to the internet via Wi-Fi. To check for updates, go to Settings and select the “About Smart Glasses” option. Then select “M100 System Updates.”



5. Using the M100

First Use

Turning the Smart Glasses On/Off

To turn on the M100 Smart Glasses:

- Press the On/Off Power Button to turn on the M100 Smart Glasses.

When the Smart Glasses power on, the White and Blue Indicator Lights will illuminate for two seconds.

Two options are provided for turning the M100 Smart Glasses off.

- Press and hold the On/Off Power Button to turn the M100 Smart Glasses off.
- Press On/Off Power Button to bring up the Power Off display and then press the Select Button to initiate the powering down sequence.

Note: Please ensure your Smart Glasses are fully charged before first use for best results.

Charging M100 Smart Glasses

M100 is charged using a USB connection. For best results the power source should be 1 amp, though 500mA USB sources will also charge the M100 at a slower rate. The LED power indicator light allows the user to monitor charge status (Solid white – full charge/ 1 intermittent blink – charging/ 3 fast blinks – nearly 0 charge).

Connecting to WiFi

To connect the M100 to the internet via Wi-Fi select the settings menu on the device. Under settings, select “Wi-Fi.” Turn Wi-Fi on. You can also scan for a network or add a network manually. Pairing the M100 with a partner device as described below

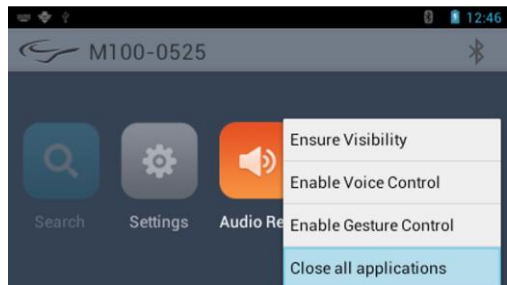
allows for easy input methods for typing in passwords. The M100 System File Manager also provides a method for this (available at www.vuzix.com/downloads). Finally, it is possible to connect using the scanner application and a QR code. For more information on this please visit the Vuzix forums online.

Bluetooth Partner Device Interface

Connecting to a Partner Device

To pair the M100 first install the Smart Glasses Manager app on your phone from www.vuzix.com/downloads.

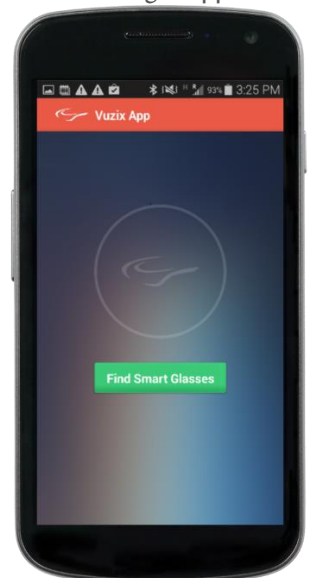
On your M100, long press the front button and select “Ensure Visibility.” The M100 will now be discoverable.

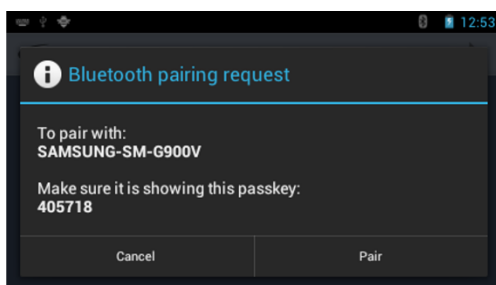


Select the option to “Find Smart Glasses” in the Smart Glasses Manager app on the Partner Device. A list of all Bluetooth pair-able devices (not just M100s) within range will open.

Select an M100 to pair from the list to start connecting. The last four digits of your M100’s serial number will correspond to the displayed M100 in the list.

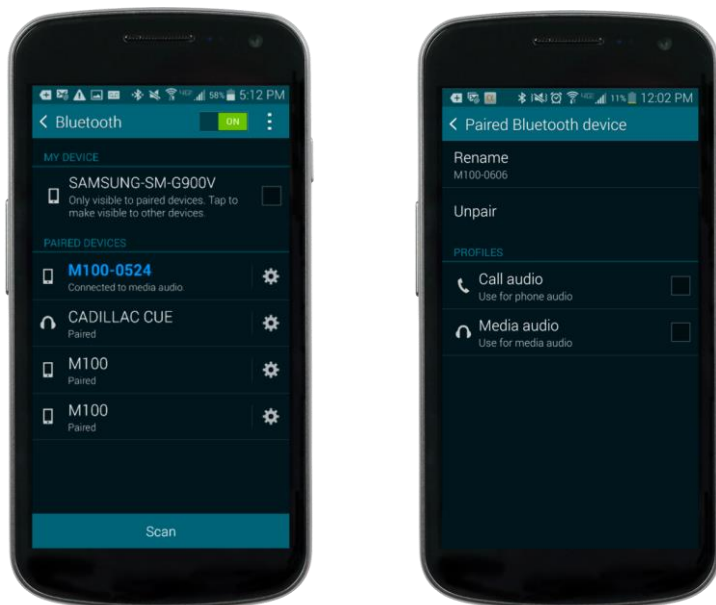
A passkey verification will show up on the M100 and the Partner Device. Ensure they match and select “Pair.” Your devices should now be paired, and the M100 can be managed by the Partner Device over Bluetooth.





To disconnect from this M100, open the menu and select “Disconnect from device”. This option will only be available if an M100 is currently paired to the device.

Once paired, the M100 can be used to listen to music from the Partner Device and be used as a hands free headset for phone calls. To enable these with the Partner Device, in Bluetooth settings on the Partner Device enable Media Audio and Call Audio as shown below.



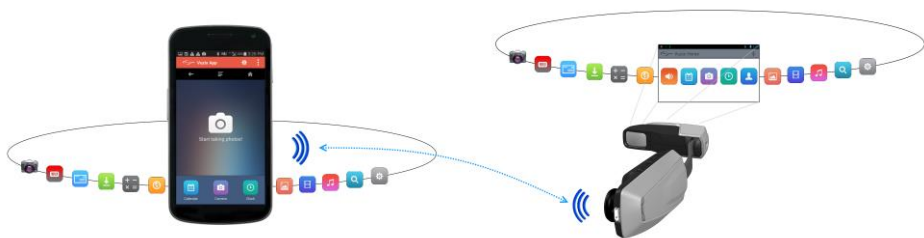
6. Smart Glass Manager

Description

The Smart Glass Manager is designed to manage applications on the M100, to be the conduit for connecting your phone to the M100, and to install new applications on the M100.

The Manager and the Carousel

Every app installed on the M100 appears on the Carousel. The Manager stays in sync with the Carousel on the M100. Selecting an icon on the Manager runs that app on the M100. M100 Native applications can be fully controlled through the Manager application on the phone or directly on the M100 with Voice, Button, or Gesture inputs.



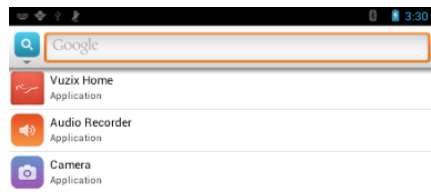
Running M100 Native Applications

In the case of running a native M100 App, like the Camera App, when the camera icon is selected on the Partner Device it opens up all the controls for the camera on the Manager and the camera on the M100 starts running as shown. Now either the M100 controls described above or the Manager App can be used to control the application running on the M100



Running Legacy Android Applications

Legacy applications often need a keyboard and a mouse to run them. When a Legacy application like the Search or Browser application on the M100 is selected from the manager, the Smart Glass Manager application supplies the keyboard and mouse function as shown here. The space above the keyboard becomes a mouse pad for the M100 and when a field is selected that needs a keyboard the keyboard automatically comes up as shown.

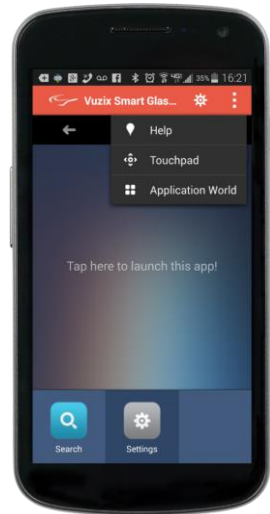


The Application World

Application World allows you to manage your M100 Apps as well as access the Vuzix App Store to acquire more applications.

To manage the applications installed on your M100 or to visit the app store and install new applications press the menu button on the right corner of the action bar in the Smart Glass Manager application and select Application World.

The Manager application will now show a selection of all available applications in your library to be installed on the M100. By pressing the icon for any of these applications they will sync to the M100 by either being removed or installed onto the M100 as selected. Once the application has been uploaded the M100 will attempt to install it. You will need to approve this on the M100.



Vuzix App Store

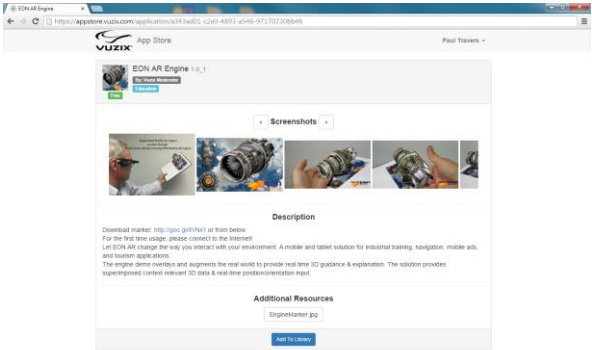
To acquire new applications select the shopping cart in the right corner of the Application World action bar. This will open the partner device's browser and connect to the Vuzix App Store.

Once in the store select the application you would like to install to the M100 by pressing "Add to Library" on the bottom of the apps listing. If it is a paid app you will need to purchase it.

After closing the Vuzix App Store the M100 will open the update window (shown here). Press Update Apps and your new application will be downloaded to the smart phone and installed to your M100. You will need to approve this on the M100.



You can also acquire more applications for your library by going directly to the app store on any browser at <http://appstore.vuzix.com>. To add applications that were acquired this way open Application World on the manager device by selecting the download icon in the right corner of the Application World action bar and then press Update Apps. Your new application will be downloaded to the smart phone and installed to your M100. You will need to approve this on the M100.



7. Specifications

General

- Display resolution: WQVGA Color display
- Aspect ratio: 16:9
- Field of view (Diagonal): 15 degrees
 - ❖ Equivalent to 4 in. mobile device screen seen at 14 in
- Brightness: >2000 nits
- 24 bit color
- Left or right eye usable
- OMAP4460 at 1.2GHz
- 1 GB RAM
- Android ICS 4.04, API 15
- 4GB flash

External Flash Slot

- Micro SD support up to 32 GB

Controls

- 4 control buttons
- Remote control app, runs on paired Android device
- Supports customizable voice navigation
- Supports gesturing

Sensor Systems

- 3 DOF gesture engine (L/R,U/D,N/F)
- Ambient light
- GPS
- Proximity

Integrated Head Tracker

- 3-degree of freedom head tracking
- 3 axis gyro
- 3 axis accelerometer
- 3 axis mag/integrated compass

Battery

- 550mAh rechargeable internal battery
- Up to 6 hours hands free (display off)
- 2 hours hands free + display
- 1 hour hands free + display + camera + high CPU loading

External Battery Pack

- 3800mAh rechargeable battery
- Ultra-thin USB mini-B cable
- Powers & recharges M100
- 115 x 58.6 x 10MM
- Increases run time up to 6.5 times over base M100

Hands Free

- Ear speaker
- Noise cancelling microphone

Camera

- 5 megapixel stills
- 1080p video
- 16:9 aspect ratio

Mounting Options

- Over head
- Safety glasses (included)
- Use with left or right eye

Connectivity

- Micro USB: control/power/upgrade
- Wi-Fi 802.11b/g/n,
- Bluetooth

8. Software Quick Reference

The M100 is based on the Android 4.0.4 operating system. As such it is compatible with hundreds of thousands of applications already available. There is also a growing developer community that is working on applications specifically designed to take advantage of the unique features the M100 Smart Glasses provide. This creates a new category of Smart Glasses applications that are “Native applications” designed specifically for the M100. Native Applications that have been specifically designed to run on the M100, and Android Legacy Applications which consist of the hundreds of thousands of applications available for Android devices.

As mentioned above the M100 can be used in a standalone operation mode or in conjunction with a Partner Device like a smartphone. When used with a Partner Device the Manager application is installed on the Partner Device to “manage” all the communications and controls between the M100 and the Partner Device. For Native Applications, the Manager application can have complete control over the M100, simplifying ordinarily complex user interface controls. For Legacy and Native applications running on the M100 the Manager application can also be used as a keyboard and mouse controller.

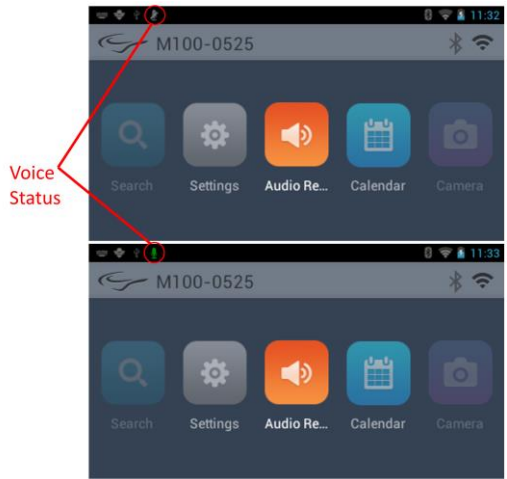
The M100 ships with both Legacy and Native style applications. This next section provides a quick overview of how these applications function both standalone and with the Manager application.

Native Applications

Most Native applications running on the M100 Smart Glasses support multiple user interface methods including hardware buttons, voice navigation, gesturing, and Manager Application support that can supply a user interface running on a paired Partner Device.

Most native applications support the following voice commands:

Voice on – If voice control is turned on the Mic icon is present on the status bar of the M100, and the M100 is always listening for the ‘Voice On’ command. If you say ‘Voice On’, the Mic will go from grey to green showing the M100 is now listening for a voice command. By default, after 15 seconds of not hearing any voice commands, the Mic icon will return to grey, and the M100 will stop listening for any command other than ‘Voice On’ and wait to be re-enabled. The 15 second default timeout can be adjusted through the Settings application under Voice. The range is in seconds with zero (0) being always listening. The list of recognized voice commands is growing constantly and may vary from one program to another.



Voice off – disable voice control (Note: Voice is automatically disabled after 20 seconds with no voice action)

Voice help – displays a list of possible command words the current application understands for about 5 seconds

Go back – back one level in app

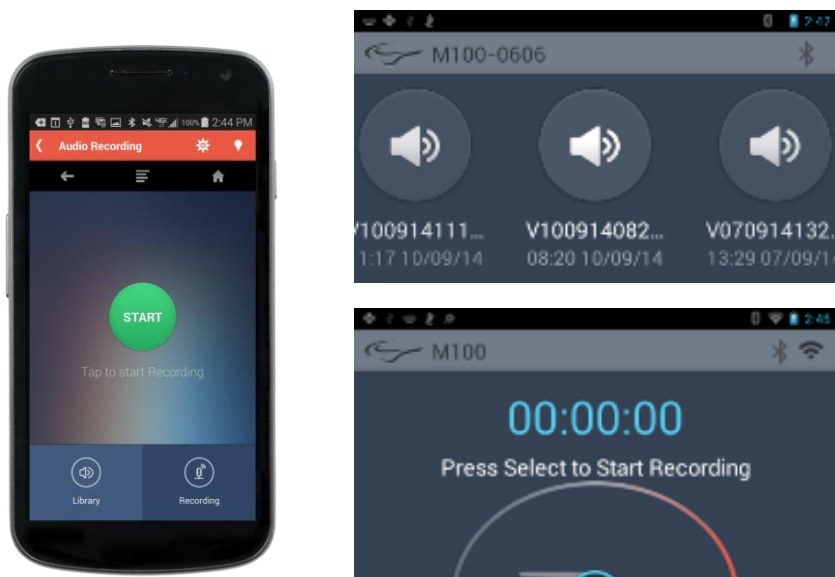
Go home – return to launcher/M100 desktop

Audio Recorder



The Audio Recorder application is a Native M100 application. It can be controlled standalone by Voice, Buttons, and Gestures; or by using the Smart Glasses Manager application installed on the Partner Device.

Sample voice commands supported: *record audio, pause recording, resume recording, delete recording, go library, go audio recording*



Press the Audio Recorder icon on the Partner Device, then press the START button to begin recording. As shown, the M100's VU meter will track the audio levels as it is recording. Recordings will then be saved in the M100 Smart Glasses audio library.

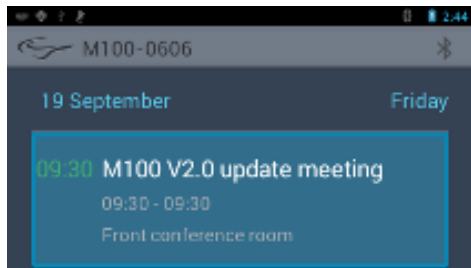
Calendar



The Calendar application is a Native M100 application designed to sync with the calendar on the Partner Device. It can be controlled standalone by Voice, Buttons, and Gestures; or by using the Smart Glasses Manager application installed on the Partner Device.

Sample voice commands supported: *Scroll Down, Scroll Up, Next Day/Week/Month/Year, Previous Day, Stop/Halt, View calendar for <date>*

Press the Calendar icon on the Partner Device, adjust the date to the day required, and as shown the M100 will show the event calendar for that day.



Native Camera



The Camera application is a Native M100 application. It can be controlled standalone by Voice, Buttons, and Gestures; or by using the Smart Glasses Manager application installed on the Partner Device.



Sample voice commands supported: *focus, zoom, take picture, take video, start recording, stop recording*

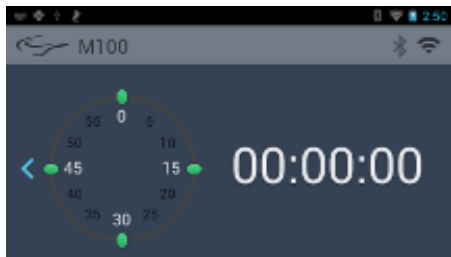
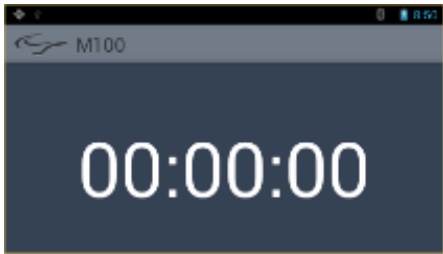
If using the Partner Device for control, press the Camera icon on the Partner Device carousel to start the Camera application on the the M100. Select Camera or Video mode and press “camera image” to take pics or “RECORD” for video.

Clock



The Clock application is a Native M100 application. It can be controlled standalone by Voice, Buttons, and Gestures; or by using the Smart Glasses Manager application installed on the Partner Device.

Sample voice commands supported: *go clock, go stopwatch, go timer, start, resume, stop, halt, reset timer.*



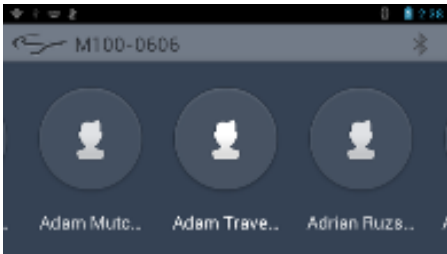
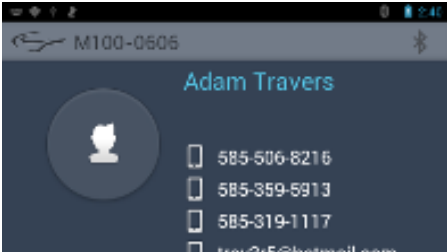
If using the Partner Device for control, press the Clock icon on the Partner Device carousel and then select the “Clock”, “Stopwatch” or “Timer” mode. Set up the M100 through this interface and press “Start”.

Contacts



The Contacts application is a Native M100 application designed to sync to the contacts database on the Partner Device. It can be controlled standalone by Voice, Buttons, and Gestures; or by using the Smart Glasses Manager application installed on the Partner Device.

Sample voice commands supported: *scroll right, scroll left, move right, move left, select, stop*



If using the Partner Device for control, press the Contacts icon on the Partner Device carousel to start Contacts on the M100. Press “Sync” to sync the Partner Device’s contacts to the M100. Selecting a contact name will open it and allow calling, email, SMS, etc. through the Partner Device using the M100 as a hands free headset. The M100 will also show the contacts on screen.

Gallery



The Gallery application is a Native M100 application that manages the videos and pictures taken on the M100 Smart Glasses and allows them to be moved/copied to the Partner Device. Using the launcher on the M100, images and videos can also be connected directly to

social media sites. The Gallery app can be controlled standalone by Voice, Buttons, and Gestures; or by using the Smart Glasses Manager application installed on the Partner Device.

Sample voice commands supported: *scroll right, scroll left, move right, move left, play, pause, select*



If using the Partner Device for control, press the Gallery icon on the Partner Device carousel to start the Gallery on the M100. The Partner Device will show all pictures and videos that have been recorded in the M100. As they are scrolled through they are also shown on the M100. To copy them from the M100 to the partner device press the “Save a copy” button.

Scanner



The Scanner application allows you to read QR Codes and Bar Code using your Smart Glasses camera. It has been integrated into certain features of the M100 to make it easy, for example, to open websites, log onto Wi-Fi networks, shop and research products on the web, and the like. Simply run the Scanner application and point the M100 to a QR Code. You can scan in both landscape and portrait modes, and can even scan mirrored images!

To create your own QR or Bar codes we recommend using the QR Droid site located at www.qrdroid.com. The M100's scanner is based on the QR Droid software.

Here is an example of creating a QR Code to access the Vuzix website www.vuzix.com.



Use this free tool to generate QR Codes. Just select the tab for one of the nine (9) available QR Code types, enter the data to be encoded and press Generate. [NOTE: Generate codes for publicly available information only; not for use with confidential/secret information**]

QR Droid will create a QR image with a short URL; just copy the URL (shown after you create a QR Code) into your browser or share it with friends, family and colleagues.

If you are new to QR Codes, read more here: [What are QR Codes?](#)

URL	Text	Phone #	SMS	E-mail	Contact	Calendar Event	Geo Location	Android App
<div><div>URL:</div><div><input type="text" value="http://www.vuzix.com"/></div><div>*</div></div> <div><div>Size:</div><div><div>200 x 200 px</div><div>▼</div></div></div> <div><div>Color:</div><div><div>#000000</div></div></div> <div><div>GENERATE QR CODE</div></div>								

* Required

Image URL: (Twitter/Facebook/Mail)

<http://qr.ai/qreb9>

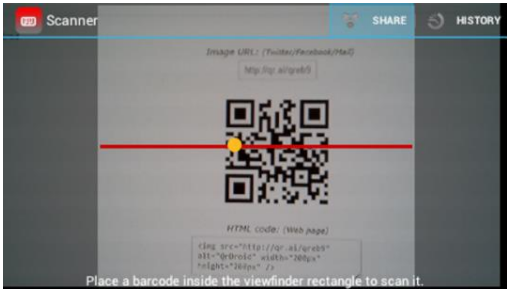


HTML code: (Web page)

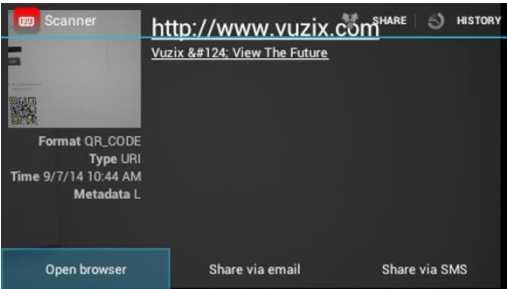
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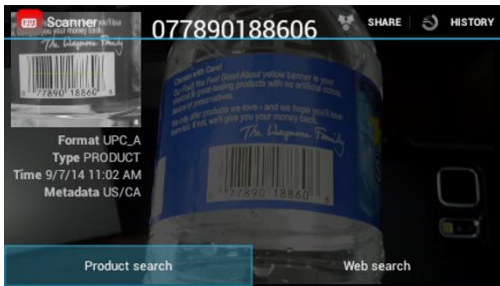
To proceed to the website represented by the generated QR Code run the Scanner app and point the MI00 camera at the QR Code as shown here.



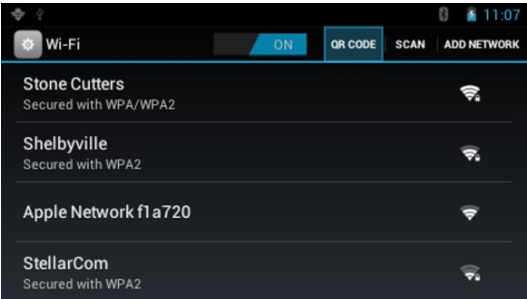
Once scanned, the Scanner will give you the option to share the link or to proceed to the website via the Browser as shown here:



The Scanner will also scan conventional bar codes and allow searching the web for shopping and product information. Simply scan the bar code and proceed as follows:



The M100 also supports using the Scanner as input for Wi-Fi connectivity. In the Settings application under Wi-Fi there is an option to use QR Codes as input. If selected, the Scanner will automatically open and when a QR Code is scanned that has encoded Wi-Fi connection information the M100 will then connect to the coded Wi-Fi network. You will need to create a QR Code encoded with the appropriate network information to use this option. See the Vuzix web forums for more information.



Settings



The Settings application is a Hybrid Native M100 application. It can be controlled standalone using Buttons and Gestures or by using the



Smart Glasses Manager application installed on the Partner Device when keyboard entry is required (like entering Wi-Fi keys). You can also use the scanner for Wi-Fi connectivity. See the Vuzix web forums for more information

Press the Settings icon on the M100 or the Partner Device and use the Buttons or Gesture sensors on the M100 to navigate within the Settings application. Most input can be managed with just the M100 controls. If keyboard entry or mouse is required the Smart Glass Manager provides them, as shown above,

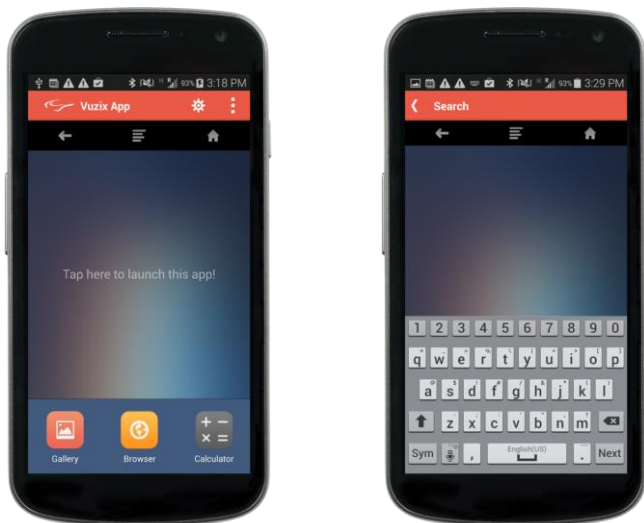
Legacy Applications

Legacy applications on the M100 Smart Glasses support multiple user interface methods including hardware buttons, gesturing, and the Manager Application that supplies a user interface running on a paired Partner Device.

Browser



The Browser application is used to browse the internet with the M100 and is a Legacy M100 application. It can be partially controlled standalone with the Buttons and Gesture but will need the Smart Glasses Manager application installed on the Partner Device when keyboard entry or mouse control is needed.



Press the Browser icon on the M100 or the Partner Device and use the Buttons or Gesture sensors on the M100 to navigate within the Browser application. Most input can be managed with just the M100 controls. If keyboard entry or mouse is required the Smart Glass Manager provides them, as shown above,

Download



The Download application allows access to the M100 downloaded files and is a Legacy based application for the M100. It can be partially controlled standalone with Buttons and Gestures but will need the Smart Glasses Manager application installed on the Partner Device when mouse control is needed. The downloaded files can also be accessed by connecting the M100 to a PC via USB and browsing the M100s directories.

Email



The Email application allows the M100 to receive and send email directly. Although the M100 does support direct email access typically users utilize the email services on their Partner Device and use the notification on the M100 as an indicator to know when email or text messages have been received on the Partner Device. The Email application is a Legacy based application for the M100. It can be partially controlled standalone with the Buttons and Gestures but will need the Smart Glasses Manager application installed on the Partner Device when mouse control or keyboard input is needed.

Movie Studio



The Movie Studio application allows movies to be played on the M100 and is a Legacy based application for the M100. It can be partially controlled standalone with the Buttons and Gestures but will need the Smart Glasses Manager application installed on the Partner Device when mouse control or keyboard input is needed.

Music



The Music application allows audio files to be played on the M100 and is a Legacy based application. The Music application be partially controlled standalone with the Buttons and Gestures but will need the Smart Glasses Manager application installed on the Partner Device when mouse control or keyboard input is needed.

Search



The Search application allows the M100 file system to be searched and is a Legacy based application for the M100. It can be partially controlled standalone with the Buttons and Gestures but will need the Smart Glasses Manager application installed on the Partner Device when mouse control or keyboard input is needed.

9. Support Services

Vuzix M100 Smart Glasses are manufactured to the highest standards but from time to time technical challenges may be experienced. These challenges may be addressed through product knowledge or user applied remedies, or possibly through direct support from Vuzix Customer Service.

Prior to contacting Vuzix Customer Service, please review the FAQs (Frequently Asked Questions) available on the Vuzix website at www.vuzix.com/support.

Contacting Customer Service

Due to importation requirements, duty and other considerations Vuzix Customer Service and warranty support can only be provided through the region from which your Vuzix product was purchased. As an example, product purchased from a US retailer cannot receive support and/or warranty service through our Customer Service located in the United Kingdom. In this case, you must contact our US based Customer Service.

The following is a listing of Vuzix Customer Service facilities and the product purchase regions each covers. If you purchased your Vuzix product online and you are unsure of its origin, contact the seller and request the point of origin from them.

Japan:	Japan only
United Kingdom:	United Kingdom, Europe, Russia, Middle East, and Africa
United States:	United States, Canada, Central & South America, Asia (other than Japan), Australia, and New Zealand

For products originating from the United States, please contact:

Corporate Website:	www.vuzix.com
Email Customer Support:	technical_support@vuzix.com
Customer Helpline:	(800) 436-7838
Customer Service Hours:	9 AM to 6 PM EST, weekdays

For products originating from the United Kingdom, please contact:

Corporate Website:	www.vuzix.com/UKSITE (case sensitive)
Email Customer Support:	vuzix@tmti.com
Customer Helpline:	0044 844 477 2977
Customer Service Hours:	9 AM to 6 PM GMT Monday to Saturday

For products originating from Japan, please contact:

Corporate Website:	www.vuzix.jp
Email Customer Support:	Japan@vuzix.com

When requesting technical support please provide the following information:

- Serial number, complete model name, and model number of your video eyewear.
- Make and model number of the audio video device being used.
- The name of any video content related to your support needs.
- Detailed explanation of the symptoms you are experiencing your questions.

Regulatory Compliance

Waste Electrical & Electronic Equipment

1. The equipment that you bought has required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.
2. In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems. Those systems will reuse or recycle most of the materials of your end life equipment in a sound way.
3. The crossed-out wheeled bin symbol invites you to use those systems.
4. If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration.
5. You can also contact us for more information on the environmental performances of our products.

FCC Compliance

NOTE: 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: 1) Increase the separation between the equipment and receiver or 2) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

技適マーク

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無線設備名 : M100 Smart Glasses

電波法に基づく表示は、製品の設定画面に記載されております。

ホーム画面→設定→端末情報→法的情報→安全に関する情報



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