Android WunderLINQ App Documentation

Initial Setup

Pair your phone to the WunderLINQ hardware.

Insert the WunderLINQ hardware into your motorcycles navigation cradle and turn on your ignition. Once the ignition is on the WunderLINQ's status light should go from flashing green to flashing blue.



Go into your mobile devices Bluetooth settings and pair it with the WunderLINQ. Select the WunderLINQ device to pair with.



The WunderLINQ should now show as "Connected" in your Bluetooth settings and the WundLINQ status light should be solid blue.

If your bike has a TFT instrument cluster, you must put it in Nav mode to pass the wheel presses to the cradle.

At this point, your Wunder Wheel should act as normal keyboard input. This works independently of the WunderLINQ app being installed. Below is the mapping between Wunder Wheel input and keyboard input.

Scroll Wheel Up: Scroll Wheel Down: Wheel Left: Wheel Right: Wheel Left Long Press: Wheel Right Long Press: UP Arrow DOWN Arrow LEFT Arrow RIGHT Arrow ESCAPE Enter

Install the WunderLINQ App

Go to the Google Play Store and install

Initial WunderLINQ App Setup

Grant Permissions

On the first launch of the WunderLINQ App, you will be prompted to grant numerous different permissions that the WunderLINQ App requires to function. Failure to grant these permissions will result in reduced or no functionality in the WunderLINQ App and will continue to prompt you to grant them.

Usage Warning



On the first launch of the day, you will be presented with a Warning that you must agree to before using the App.

After completing the <u>Initial Setup</u> section, the WundLINQ hardware will automatically reconnect to your Android device when powered on. On connection, the WunderLINQ App should automatically launch on your device and show connected with blue Bluetooth icon. If you have a supported motorcycle with data you should see some data populated. *Please note some values like tire pressure don't show initial readings until the bike has moved some distance.*

RT/K1600 Owners

RT Owners the first thing you'll want to do is to put the WunderLINQ Wunder Wheel Mode to RT/K1600 under the <u>HW Settings Menu</u> option.



WunderLINQ App Usage

General Screen Navigation

You can navigate through the main WunderLINQ App screens using one of three methods.

- 1. Wunder Wheel Left and Right Presses
- 2. Left and Right Swipe Gestures
- 3. \checkmark and \checkmark in App buttons

To navigate options within a screen you can scroll up and down on the Wunder Wheel then using a long right press to select.

Below is the default key mapping, this is the mapping for all bikes except the RT.



Below is the mapping between Wunder Wheel input and keyboard input.Scroll Wheel Up:UP ArrowScroll Wheel Down:DOWN ArrowWheel Left:LEFT ArrowWheel Right:RIGHT ArrowWheel Left Long Press:ESCAPEWheel Right Long Press:Enter

Below is the mappingbetween Wunder Wheel input and keyboard input on RT and K1600.Zoom+UP ArrowZoom-DOWN ArrowPageRight ArrowPage Double ClickEnterScrollLeft ArrowScroll Double ClickEscape

Motorcycle Screen

The Motorcycle screen displays a customizable grid of data points provided by your motorcycle and phone. Bluetooth connection status, active fault status, and buttons to a few other functions are also available. To customize the grid you can by long-pressing a cell or under the App Settings.

WunderLINQ Controls: Scroll Wheel Up/Swipe Up: Scroll Wheel Down/Swipe Down:

Increase cell count Decrease cell count

Touch Controls: Long Press cell:

Select cell data point



hardware Benotes no connection to the WunderLINQ

A Denotes active motorcycle faults, it can be pressed to view a list of active faults.

Henu button

> Next screen button

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< 윊 🗛	Motorcyc	le ≡ >
GPS Speed (mph)	Time	Bike Info
		Trips & Waypoints
U	09:31 /	App Settings
Altitude (ft)	Sunrise/Su	HW Settings
Annuale (Ity	ournoc, our	About
6807	06:09 AM/08:0	Enter Split Screen
••••		Close
Throttle (%)	g-force	Trip 1 (mi)
3	0.1	0.0
Front Tire Pressure (psi)	Barometric Press	Trip 2 (mi)
0	794	40.0
Economy 1 (mpg)	Consumption (n	npg) Economy 2 (mpg)
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The **=** button will display a popup menu. That includes options to:

<u>Bike Info</u>: Displays bike VIN and next service information

Trips & Waypoint: View and manage saved data App Settings: Settings that impact the app HW Settings: Settings that impact the WunderLINQ hardware

About: Displays information about the app and includes links to the WunderLINQ web site. Enter Split Screen: starts Android Split Screen Mode Close: closes App

Active Fault Screen



The Active Faults screen Displays a list of currently active faults. For an updated list of support faults, follow this <u>link</u>.

Bike Info Screen

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К В	ike Info		
VIN	Z096010		
Next Service Date	2018/07/27		
Next Service	4300(km)		
Cluster Data Reset			
Item	Trip 1		
RESET			

The Bike Info page displays your motorcycles VIN, next service date and distance to next service.

Below your bike info there is an option to reset some of your bike's cluster data. Currently, you can reset Trip, Fuel Economy and Average Speed Counters.

Data Management Screens



The initial screen allows you to select from your saved trip logs and waypoints.

Recorded Trips Screen

The Recorded Trips screen displays the trip logs recorded using the Start/Stop Trip Recording Quick Task.

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<	Recorded Trips
WunderLINQ	-TripLog-20190104-15-18-20.csv
WunderLINQ	-TripLog-20181203-19-45-41.csv
WunderLINQ	P-TripLog-20181123-20-53-14.csv
WunderLINQ	P-TripLog-20181106-21-55-06.csv
WunderLINQ	P-TripLog-20181106-21-51-27.csv
WunderLINQ	P-TripLog-20181106-15-08-18.csv
WunderLINQ	P-TripLog-20181106-07-52-46.csv
WunderLINQ	P-TripLog-20181106-06-32-40.csv
WunderLINO <	D-TripLoa-20181105-20-01-46.csv

Trip Screen

The Trip screen displays a map of the trip and a summary of the data recorded

Controls:

Swipe Left:	Previous Trip
Swipe Right:	Next Trip



Date Recorded 2019-06-30T09:59:23-07:00 Distance 321.9 mi Duration 10 h, 32 m, 47 s Speed (Avg/Max) 34.6/83.6 (mph) Gear Shifts 240 Brakes (Front/Rear) 781/354 Ambient Temp (Min/Avg/Max) 61.7/75.5/91.4 (F) Engine Temp (Min/Avg/Max) 124.7/181.8/212.5 (F) SHARE DELETE

Share sends the trip log in CSV format through a variety of methods. You can use a site like <u>http://www.gpsvisualizer.com</u> to draw your track on a map.

Delete permanently removes the trip log

Saved Waypoints Screen

The Saved Waypoints screen displays the waypoints saved using the Save Waypoint Quick Task.

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<	Saved Way	points +
Pond		
2019-11-29T20:50:51-07:00		

Touch the waypoint that you would like to manage.

You can also manually add a waypoint by touching the + icon.

Saved Waypoint Screen

The Saved Waypoint screen displays a map with the waypoint, the date recorded, location and an editable label.

Controls:	
Swipe Left:	
Swipe Right:	

Previous Waypoint Next Waypoint



Saved Waypoint



 Date Recorded
 2019-06-30T17:55:52-07:00

 Latitude
 46.28277755

 Longitude
 -122.2097035

 Label
 Waypoint Label

NAVIGATE

OPEN IN MAP APP

DELETE

Label: field to assign a label to the waypoint

Share: sends a Google Maps link through a variety of methods

Navigate: will route you to the waypoint in your preferred map application

Open In Map App: will open the location in your preferred map application

Delete: permanently removes the trip log

Add Waypoint Screen

The Add Waypoint screen displays a map with a pin showing the currently selected location.



To add a new waypoint either use the address lookup or manually drop the pin on the map but touching the location on the map. When ready touch "Save"

Drop pin or lookup address

Type Address

LOOKUP Latitude 38.84002595194831 Longitude -105.04286013543607 Label Pikes Peak SAVE

About Screen

<	About
,	WunderLINQ Version: 1.81 Black Box Embedded, LLC
	SEND LOGS
	Credits Support and Patience
	Amy and Yaeko
	All Star Beta Tester
	Martin Dohnal
	Translators
	Tüscher Martin Efren Martin PT_JCAL Martin Dohnal Nikos Papanikolaou Frederic Boucher Žiga Selčan Remco van den Ende
	Kickstarter Backers
	Gareth Hadden Dennis Beilby André Guest 1027536916 Guest 1868214759 Guest 1868214759 Guest 1239069827 Guest 237538773 Sandra H. Minner The Creative Fund Guest 1333815029

The about screen provides a link to our website and the ability to send an email to support.

The "SEND LOGS" button will format an email to WunderLINQ support, that includes device information and logs.

Music Screen



TOOL Fear Inoculum Fear Inoculum



The Music Screen will control a active music player the implements Android standard controls. Some tested Apps include Google Play Music, Spotify, Pandora, and SiriusXM. Media button selection is controlled by scrolling the Wunder Wheel up and down and selecting via the right long press. Make sure your music player has been launched, otherwise you will not have anything for WunderLINQ to control.

WunderLINQ Controls: Scroll Wheel Up: Scroll Wheel Down: Wheel Left: Wheel Right: Wheel Right Long Press:

Next Song Previous Song Page Left Page Right Play/Pause

Quick Tasks Screen

The Quick Tasks screen provides quick access via Wunder Wheel to some convenient functions. The task list can be customized under the <u>App Settings</u>.



Task Options

Navigation: Launches a supported 3rd party navigation app into driving mode.

Go Home: Launches a supported 3rd party navigation app and routes you to the destination you've defined in the WundeLINQ App Settings

Call Favorite Number: Launches your phone app and dials the phone number you've defined in the WundeLINQ App Settings

Call Contact: Provides a list of your address book phone numbers that you can in turn call.

Take Phone: Takes a picture with your Android devices rear camera.

Take Selfie Takes a picture with your Android devices front camera.

Start/Stop Recording: Controls video recording through your Android devices rear camera.

Start/Stop Trip Log: Controls trip logging. Trip logging includes location and performance data.

Save Waypoint: Save your current location as a waypoint to be viewed later.

Navigate to Waypoint: Launches a supported 3rd party navigation app and routes you to the saved waypoint.

Voice Assistant: This will launch your Android devices Virtual Assistant so that you can provide voice commands.

Settings: Launch App Settings

Home Screen: Go to Android Home Screen

Start/Stop ActionCam Recording: Control <u>compatible</u> ActionCam's shutter

Weather Map: Display a zoomable weather map with precipitation overlay.



App Settings Screen

The Settings screen provides access to all of the WunderLINQ App settings.

User Interface Settings

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Personal Information	
Home Address 14 E. Cache La Poudre St, Colorado Springs, CO	30903
Favorite Phone Number 13159082868	
User Interface	
Disable performance data display Enable for bikes that lack performance data.	
Data Grid Customization Customize which data points to display and in w	nich cell
Quick Task Customization Customize which tasks to display and in which c	rder
Contacts Display Favorites	
Pressure Unit psi	
Temperature Unit Fahrenheit	
Distance Unit Imperial	
Bearing Unit Cardinal	
Orientation Lock	
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Orientation Lock Portrait	
Display Brightness Sets the devices brightness to the max.	
Night Mode Off	
Auto Night Mode Delay Set Auto Night Mode Delay In Seconds Alert Settings	
Custom Tire Pressure Threshold Use a custom threshold for low tire pressure ale	rting
Low Tire Pressure Threshold Specify a number based on your unit selection	
Fuel Routing Prompt to route to nearest fuel station when low present Advanced Settings	fuel fault is
Photo Preview Displays the photo after capture	
Auto Launch App Auto launch WunderLINQ app when WunderLINQ connects) hardware
Experimental Features	
Enable task switcher	

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Prompt to route to nearest fuel station when low fuel fault is present	
Advanced Settings	
GPS Bearing Use GPS Bearing instead of magnetic compass.	
Photo Preview Displays the photo after capture	
Auto Launch App Auto launch WunderLINQ app when WunderLINQ hardware connects	
Integrations	
Integrations Enable integration with 3rd Party Apps and hardware.	
Experimental Features	
Enable task switcher If wheel is held left it brings up the task switcher, only enable if it isn't working as a back button	
Enable Picture in Picture mode When leaving the app the data grid is minimized into a	
PiP Orientation Landscape	
PiP Cell Count	
4	
Debug Settings	
Enable Debug Logging Only enable if needed by Support, may impact performance if left running. Please disable when finished.	

Advanced Settings

GPS Bearing: Select to use GPS bearing instead on compass **Photo Preview:** Displays photo after capture **Auto Launch App:** Launches app when WunderLINQ hardware connects

Integrations

Integrations: Settings for 3rd party software and hardware integrations

Experimental Features

Enable task switcher: Long left press brings up the Android task switcher

Enable Picture in Picture: When enabled the Motorcycle Screen is put in a floating window when you leave the app.

PiP Orientation: Select landscape or portrait layout for the PiP window

PiP Cell Count: Number of data cells to display in PiP window

Debug Settings

Enable Debug Logging: Only enable if requested, and should be shut off when you are done. May cause performance issues if left on.

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Navigation App OsmAnd	
Action Camera Hero3	
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Integrations

Navigation App: Select preferred Navigation App **Action Camera:** Select preferred <u>Action Camera</u>

HW Settings Screen

The HW Settings screen provides access to all of the WunderLINQ Hardware settings. Currently, these settings control how the Wunder Wheel performs.

WunderLINQ Hardware Settings

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< Wunde	rLINQ Settin	igs	
Firmw	are Version 1.8	8	
Wheel Type	Full	•	
Hold Sensitivity	15		
	•		Firmware version is displayed at the top if running firmware >= 1.7
			Wheel Type: This is what type of wheel you have t current choices are "Full" and "RT/K1600"
			Hold Sensitivity: Controls the delay for registering long presses or double clicks.
			Save Settings: Writes the settings change to the WunderLINQ. After saving your settings please remove your WunderLINQ from the cradle then

reinsert to perform a full reset.

SAVE SETTINGS

3rd Party Integrations and Tweaks

Apps

Locus Maps Pro - Enable Map Zoom with Wunder Wheel



Open the drawer and select "Settings"

÷	Settings	
\$	Controlling	
វា	Maps	
\$	Points & tracks	
REC	Track recording	
5	Navigation	
\$.0	Guidance	
* =	Geocaching	Select "Controlling"
5	GPS & sensors	
t ∎	Language & Units	
4 11	Miscellaneous	



Select "Map screen"

3	← Map screen	:
Map control style (Locus Map) Select Locus or Google way of controlling map		
L (Use hardware controllers (WunderLINQ) Select local or external HW to control the app	
S	Simple multi-touch Disable rotation and panning when zooming	
Т	Tap and hold to display address	
S N V	Shift map cursor Aove it by ¼ closer to bottom for better navigation. Vorks only with map rotation on.	
F	lold map center Re-align your position with map cursor after 5 sec	
T N	wo finger measuring Measure distance between any two points on map	
N (1	Map cursors (Default) Select set of location and tracking cursors, set size	
() ()	Automatic zooming Enabled) Zoom in/out according to actual speed or d o target	listance



Select "WunderLINQ"

That's it!

OsmAnd Enable WunderLINQ Support

OsmAnd Includes WunderLINQ support for Map Zooming and returning to the WunderLINQ App.



Open the drawer and select "Settings"

General settings

Configure display and common settings for the app.

Application profiles

Select the profiles to be visible in the app.

Navigation settings

Specify options for navigation.

OsmAnd Live subscription

Subscription enables hourly, daily, weekly updates, and unlimited downloads for all maps globally.

Select "General settings"

Privacy and Security Select which data you are sharing with us

Plugins



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Screen orientation Portrait, landscape, or device.

Localization

Display language Select display language (takes effect when OsmAnd is restarted).

Driving region [Automatic]

Select the driving region: US, Europe, UK, Asia, and others.

Select "External input devices"

Units of length

Change what distance is measured in.

Coordinate format

Format for geographical coordinates.

Angular unit Change what azimuth is measured in.

Misc

App theme Choose how the app looks.

External input devices

Select a device such as a generic keyboard or WunderLINQ for external controls.





Select "WunderLINQ"

That's it!

Hardware

ActionCams

GoPro

GoPro Hero 3 and newer cameras shutter can be controlled via the ActionCam QuickTask. The GoPro must be paired and connected to your smartphone before the WunderLINQ app can control it.