

# Competitor - Richta GPS Checkpoints app (aka Richta app) Guide

## If you don't have it, install the app:

**Android** -- Go to the Google Play Store and download the Competitor - Richta GPS Checkpoints app. Press "Allow" to grant permission to access your device's location. Open the app. Accept the Privacy Policy.

**Apple** -- Go to the Apple App Store and download the Competitor Richta Checkpoint app.

## If you've used it before, unregister from the prior event:

If you used this app for a prior event, first make sure you have the [most recent version](#) of the app. Then you'll need to unregister:

**Android** -- Open the app, press "Unregister" at the bottom of the screen until the app closes.

**Apple** -- Open the app, press the word "settings" at the bottom of the screen, then select "Unregister".

## Register your assigned car number:

**Android** -- Open the app and choose the event name. Enter the event password given at registration and press "Check Password".

Enter your car number and create your user password. Remember your user password in case you need to log back into this event.

Press "Save". Then press "Add" when it appears. You should see a screen similar to the example (but with no data yet). You're all set.

**Apple** -- Choose the event name provided to you. Enter your car number. Create a user password and enter it.

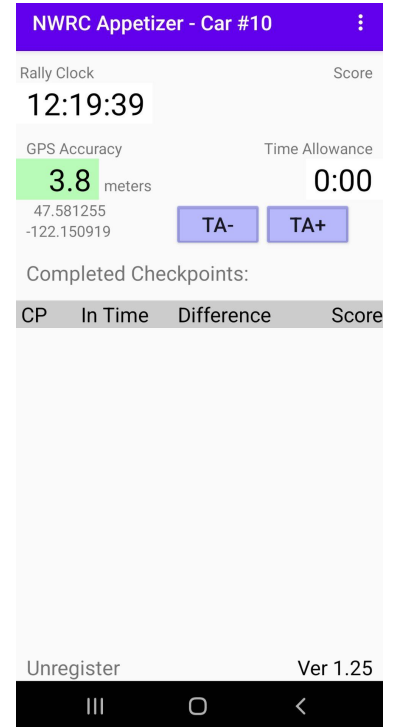
Press "Done". Press "Continue". Press "Submit Info". Choose "Always Allow". You should see a screen like the example. You're set.

## Using the Richta app (on any phone)

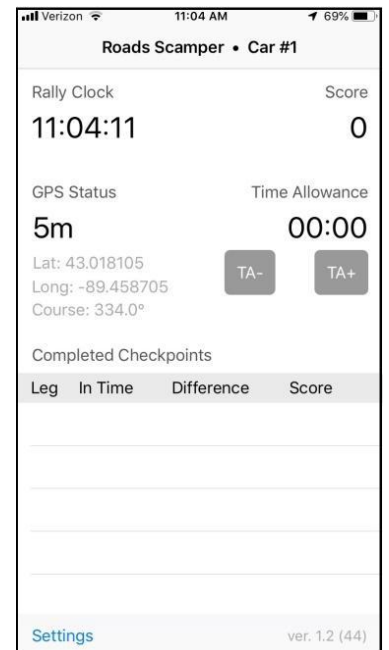
Open the Richta app and verify that the app is running by seeing the Rally Clock advancing. Move around the parking lot and confirm that the GPS coordinates are changing. It is useful to disable notifications for other apps on your phone to prevent interruption of the Competitor app. Make sure the Location Service (GPS) is turned on.

If the app keeps shutting itself off, go into your phone settings for Apps, and make sure the Competitor app has Location and Storage permissions turned on. You should not run other apps on the device that is running the Richta app during the rally. If you need to use any other app during the rally, use a different device.

You can run the Richta app on a device that does not have cellular service (a wi-fi only tablet), but will need to tether it to your phone or mobile hotspot to register the app at the start and upload scores during the event. It is not the event host's responsibility to supply Internet access for you.



*Android example*



*Apple example*

Your device does not need to have cellular data service continuously during the rally for the app to work. It will download event information prior to starting the rally and upload score/status information periodically. Only GPS signals need to be received throughout the rally. Please note that if you do not have mobile data, you will not receive broadcast messages described below.

If the app stops during the rally (Rally Clock at top left will stop advancing), pull off the road in a safe location, close the app. Open it again (should still be registered) and wait a moment. You will see a 'car ready' message. When GPS data resumes, you are ready to continue the rally. Take a time allowance if necessary. The app will resume where it left off. No data will be lost. If you pass a checkpoint while the app is not running, you will not be timed at that checkpoint and you will be scored as a max. It is your responsibility to make sure that the app remains visible on your smartphone during the rally. If your phone is displaying something other than the Richta app, it may not record your arrival time at checkpoints.

This app uses a lot of power due to its use of GPS. You should plan to have your device connected to a power supply during the rally, otherwise you may run out of battery during the rally.

Once the app is set up, you do not need to interact with it much. It automatically displays your assigned out time at RESTART points. When you pass a checkpoint it displays your arrival time and leg score. You'll only touch your device to enter a time allowance or read a checkpoint slip.

## Time Allowance

Use time allowance by pressing the TA+ button on the Richta app. The 1st press creates a 10 second time allowance. The 2nd press increases it to 20 seconds. The 3rd press makes it 30 seconds. Each additional press adds 1 minute to your time allowance up to a maximum of 19 minutes 30 seconds (19.5 minutes). Pressing the TA- button will decrease your time allowance by the same increments, in reverse order. While running under a time allowance, the amount is displayed above the TA+ button.

## Checkpoint Slips

After passing a checkpoint or route control, you can access additional information if the rallymaster has chosen to provide any. Simply tap any checkpoint in the completed list to read the associated checkpoint/control slip.

## Broadcast Message

If the rallymaster needs to send competitors information while they are running the rally, a Broadcast Message will appear on your device. To return to the main Competitor display, press Dismiss.

## User Interface

You can customize some features of the Competitor app. On Android, press the three dots at the top right corner. For Apple press Settings at bottom left.

Comms Check and Sound Check are handy tests. Take a moment and run the Sound Check. If your device is linked to your car's audio system, you may need to adjust something in the car.

Toggle Sound selects between a warble tone or verbal announcement at checkpoints.

Show Broadcast Message will display a previously dismissed Broadcast Message.

CP	In Time	Difference	Score
20	15:01:30	0:10.3	Early 10
19	15:00:44	0:10.3	Early 10

## Restarts

Unlike a checkpoint that is announced after you pass it, a Restart point shows up in the app shortly before you arrive at its location. Pull off the road and wait until your new out time. If you are late and need more time at the Restart, begin a new Time Allowance.

## Things We Learned So You Don't Have To Learn Them Yourself

Keep the phone that is running the app "daylight visible". It may not work properly if the phone is on the floor, under the dash, etc. A secure mount is a very good idea. Suction cup windshield mounts are a good temporary method. This puts the device above the window/body line, where it has better exposure to GPS signals

Keep your device plugged into a power source during the rally. Running the display and GPS receiver continuously puts a high load on your device's battery.

You really should use Sound Check to verify that audio is working and adjust the volume. When the radio is on in my car, BT audio is ignored. I have to remember to either select BT as my audio input or temporarily unpair my phone from the car so the app can use the phone's speaker.

Using GPS checkpoints is a little different and some people have strong opinions about it, pro and con. Timing using GPS positional data has some variability, because the realtime output of a GPS receiver is an estimated position. The Competitor app shows the current GPS accuracy. This value will change based on weather, terrain, and tree cover. 4-7 meters is pretty common. 30 MPH is about 14 meters per second, so passing a checkpoint at that speed with an accuracy of 7 meters gives timing with an accuracy of +/-0.5 second.

Oversimplifying things for explanation, the Competitor app monitors your distance to all checkpoints you have not yet passed. When you come within a certain distance of a checkpoint (we call it the detection bubble) and then that distance begins to increase, the app will trigger. Using the timestamp of the last GPS packet before the distance began to increase, it calculates elapsed time and compares it to the official time for that checkpoint.

There are some tools the rallymaster can use to refine checkpoint operation, such as a limited time window of operation or the direction the vehicle must be traveling.

As of v1.25 (for Android) of the Competitor app, there is no 'dark mode' theme to reduce glare at night. It's a feature that has been requested.

There are fancy high precision GPS receivers on the market that can be used with Richta apps. Don't even think about them. They add several possible failure modes and no measurable benefit for the Friday Nighters where scoring is in whole seconds. When you're ready to fight over tenths on a 'big' event, we can talk.

## More info about the Richta GPS app

[richtarally.com](http://richtarally.com) [drsgca.org/rally/using-the-richta-competitor-app/](http://drsgca.org/rally/using-the-richta-competitor-app/) [Facebook: Richta GPS Checkpoints](https://www.facebook.com/RichtaGPSCheckpoints)

## We're the Northwest Rally Council

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