

**PCA Sacramento Valley Region  
TSD Rally  
General Instructions  
Version 2026 02 15**

**A. Introduction**

Time-Speed-Distance (TSD) rallies are driving events where competitors are provided with a set of instructions to travel a designated route, at assigned speeds, on open, public roads. A TSD RALLY IS NOT A RACE. The instructions and speeds assigned are to be followed as precisely as possible. Each team is scored on how closely their time compares to the calculated perfect time for each leg. Penalty points are assigned for the amount of time in seconds, EITHER EARLY OR LATE, that the team deviates from the calculated perfect time. The points for each leg are totaled together to derive the final score. Supplemental Instructions, if needed, will be issued by the Rally Master prior to the event.

**B. Pre-Rally Procedures**

Download the Richta Competitor application (app) onto your cell phone before the day of the rally. The app can be downloaded at no charge at either the Apple app store or the Android app store (Google Play). There are other Richta apps, so be sure to select the “Competitor” app. The event name and password used to sign in to Richta will be provided prior to the start of the rally. The Richta app will be tested during check-in.

**C. Check-in and Starting Procedures**

Check-in will be at the start location, beginning approximately one hour before scheduled departure of the first car. All entrants will need to check-in to obtain Route Instructions, be assigned a car number and start time. A safety meeting will be held approximately one-half hour before the first car is scheduled to depart.

Assistance with the Richta app will be available at the start location. Official rally time will be provided on the Richta app. See Section G for additional information regarding the Richta app.

**D. The Route**

All roads used for the rally are paved, public, through roads. Unpaved roads, roads marked “Not a Through Road,” “Dead End,” “No Outlet,” “Private Drive,” or similar

phrases, or that visibly end in a cul-de-sac or barricade DO NOT EXIST and are not to be used unless a Route Instruction clearly states otherwise. At each intersection that you encounter, execute the active Route Instruction if it is applicable. If not, go as straight as possible. Private driveways and roads may be used at the start, at the finish, or as directed in the Route Instructions.

### E. Route Instructions

The Route Instructions combined with these General Instructions will guide your route and time through the rally. Execute each route instruction in ascending numerical order.

Route instruction examples:

RI #	Total Miles	Instruction
53	17.59	RIGHT at STOP (CALIFORNIA 193). <b>CAST 32 MPH</b>
54	19.74	At "SPEED CHECKED BY RADAR". <b>CAST 45 MPH</b>

Each route instruction must be completely executed before the next becomes active, unless the instruction clearly states otherwise. A route instruction is complete when all parts of the instruction have been completed. Material in parenthesis is meant to be helpful, but not essential to the proper execution of the instruction.

Instructions may reference signs, objects, or places along the rally route. When an instruction includes words, letters, numbers, or symbols within quotation marks (“...”), you must see those words, letters, numbers, or symbols on a sign along the rally route. When less than an entire sign is quoted in an instruction, a prominent portion will be used.

When an instruction references objects or places along the rally route, such objects or places will be identified by a sign (which will be in the immediate vicinity of the object or place) or must be defined in these General Instructions. Spelling will be accurate for signs quoted or identifying landmarks, but case and punctuation may be ignored.

Speed changes listed in the Route Instructions are initiated at the first part of the indicated sign or landmark, unless instructed otherwise.

## **F. Speeds**

The speeds cited in CAST instructions (see Section I) are in miles per hour and represent the average speeds over the distance travelled while they are in effect. It will not be necessary to violate any speed limits or other traffic laws to achieve a perfect score at any control.

If a sign is missing or there is an unexpected change in the route, an EMERGENCY SIGN may be posted. Such a sign will be marked "PCA" and show a route instruction and/or a direction arrow. If the sign includes a route instruction number, execute that instruction. If the sign only shows an arrow, proceed in the direction indicated.

## **G. Richta Timing, Measurements, and Starting**

Official rally time will be available in the Richta Competitor app on your smartphone. Times shown will be in hours, minutes, and seconds. All checkpoints and other controls are synchronized to this time. The course will be measured to the nearest 0.01 mile using a GPS system.

Most rallies will begin with a leg called an "Odometer Check." The purpose of this check is to allow each team to determine how their odometer compares with the official rally mileage measurements.

There are two types of starts or restarts, both involving the Richta app. The most common is the Car Zero Time (CZT) start, in which the rally team simply departs when their stipulated time (as per the Route Instructions) appears on their smartphone Richta app display screen. The other type of start is referred to as a "flying restart" and it offers a flexible start time typically used after a rest break or transit. For example, a route instruction may indicate that the rally team has a 15 minute rest break with a "flying restart" afterwards to resume the rally. This affords the rally team the opportunity to depart at a time of their own choosing. The route instruction will indicate the restart location (i.e. a sign, intersection, etc.) with the admonition not to approach that location until the team is ready to resume the rally. Multiple cars will not be assigned the same restart time by the Richta app. The team pulls up to the restart location and departs when the restart time appears on the Richta app display screen.

## **H. Time Delay Request Allowance (i.e. "Time Allowance")**

If you are delayed along the rally route for ANY reason, you may take a time-delay without any penalty. If you are delayed due to road blockage, slow traffic, getting lost,

nature call, or any other reason; do not speed up to try to make up the lost time. You submit a time delay directly into the Richta Competitor app by pressing the TA+ button on the screen. Each press of the TA+ button adds more time delay time as shown below:

Press	Time Added (sec)	Cumulative Time
1 <sup>st</sup>	10 sec	10 sec
2 <sup>nd</sup>	10 sec	20 sec
3 <sup>rd</sup>	10 sec	30 sec
4 <sup>th</sup>	1 min	1.5 min
5 <sup>th</sup> and additional	1 min	2.5 min
Maximum, per leg	9.5 min	
Maximum, total	19.5 min	

You can remove some or all of the time delay by pressing the TA- button on the screen. You can have a maximum time delay of 9.5 minutes at any time during the rally. If you need to use or modify a time delay, it is critically important that you do so in the Richta app BEFORE you reach the next checkpoint. Once you have come to a checkpoint it is too late to submit a time allowance for that leg. The time delay allowance does not carry over to the next leg following the checkpoint (i.e. it is removed and you again have a maximum of up to 9.5 minutes available for the new leg). The maximum total Time Allowance that can be accumulated for the entire rally is 19.5 minutes.

## I. Definitions and Abbreviations

**BEAR RIGHT (or LEFT)** - A turn at an intersection in the indicated direction of substantially less than 90 degrees

**CAST** - An acronym for Change Average Speed To, indicating that the preceding speed (in miles per hour) is to be discontinued and replaced by the value given after CAST.

**CONTROL POINTS** – Includes Checkpoints, Odometer Check, Time Checks, Start/Restart, and Flying Restart. All of these (except the Odometer Check) are found in the Richta system.

**CP** - Checkpoint. A type of Control Point used in scoring. The checkpoint score is the difference between the team's time, in minutes and seconds, and the calculated rally time.

**CZT** - An acronym for Car Zero Time (time of day for car number 0 such as 10:00:00). Used to set or reset your time of day at locations given in the route instructions.

**FLR** – Follow lined road. If instructed to FLR, continue to follow the lined road as instructed or until the execution of the next Route Instruction.

**FORCED TURN** – The meeting of two roads where you may continue in only one direction without making a U-turn. Forced turns may or may not be instructed.

**HTS** – Hard To See, a warning that a sign or feature mentioned in a Route Instruction may be difficult to see.

**INTERSECTION** - Any meeting or crossing of two or more rally roads where the team will have a choice of direction in which to proceed without making a U-turn.

**LEFT** - A turn to the left at an intersection of from 60 to 120 degrees.

**OBSERVE** - Observe or take note of a sign, landmark, object, or place along the route.

**ODOMETER CHECK** - Instructions at the beginning of the rally that will allow you to compare your odometer readings with that of the official measurements.

**OPP** - Opportunity to turn on a road at an intersection in the direction indicated. Count OPPs on the side indicated. Example: Left 2<sup>nd</sup> OPP (count only on the left).

**PAUSE** - To delay a specified time at or near an identified point. Example, Pause 2 minutes for traffic at Highway 101.

**RI** - Route Instruction

**RIGHT** - A turn to the right at an intersection of from 60 to 120 degrees.

**ROUNDBOUT** - A roundabout is a type of circular intersection or junction in which road traffic flows almost continuously in one direction around a central island.

**SIGNAL** - A signal consists of red, yellow, and green lights designed to control traffic at an intersection. It may or may not be operational or it may be operating as a blinker. Count only one SIGNAL per intersection.

**SOL** - Sign on Left refers to a sign on the left side of the road.

**STOP** - STOP (without quotations) refers to a red octagonal sign with white letters at an intersection that faces and is applicable to the rally route (even if you are making a right turn and appear to avoid the STOP). Count only one STOP per intersection.

**STOP AHEAD** - An advance warning sign intended to alert the driver of an upcoming STOP on the road ahead. The sign may be a yellow diamond shaped sign with a red octagonal sign illustrated in the center. The words Stop Ahead may or may not be on the sign.

**STRAIGHT** - Proceed within plus or minus 10 degrees of directly ahead at an intersection.

**T** – A T-shaped intersection with your line of travel up the stem.

**TRANSIT** - A part of the rally route in which there are no checkpoints and in which no specific speed need be maintained. The Route Instructions will indicate either a restart time or that a flying restart will occur. A restart time at the end of the Transit will be given in the Route Instructions. An approximate distance for the length of the Transit may be provided. Route instructions apply, but you may leave the rally route, take a break, stretch, refuel, etc..

**Y** – A Y-shaped intersection with your line of travel up the stem.

**YIELD** - YIELD (without quotations) refers to a red and white triangular sign at an intersection controlling the lane of travel for the rally route. Count only one YIELD per intersection.

## **J. Checkpoint Procedures**

Checkpoints are timing locations that are measured by the Richta Competitor app. The Richta app monitors your location using GPS and records your arrival time at each checkpoint to a resolution of one second or less. The existence or location of checkpoints may or may not be indicated in the route instructions. Contestants do not stop at checkpoints. Upon passing a checkpoint location, your Smartphone will make a notification sound (a chime) and display your arrival time, your leg score, and whether you were early or late. Your time of arrival at a checkpoint serves as the start time for the next leg.

## **K. Scoring and Penalties**

You will be penalized one point per second early or late at each Checkpoint up to a maximum of 200 points (3 minutes, 20 seconds) per leg. Rally Masters may select a maximum penalty of less than 200 points. Competitors will be penalized the maximum points for missing a Checkpoint.

Any entrant receiving a ticket or citation for a moving traffic violation during the rally is subject to disqualification. Use of drugs or alcohol is also subject to disqualification.

## **L. Classes**

There are five classes:

- Beginner
- Experienced – Non Equipped
- Experienced – Equipped
- Expert – Non Equipped
- Expert – Equipped

Beginner is for teams who are new to TSD rallies. They can remain as Beginners for up to 6 rallies and then progress to Experienced, but they don't have to advance in the middle of a season. Experienced teams are encouraged to advance to Expert after 12 rallies, but this is not a requirement. Both Beginner and Experienced teams can elect to advance to the next level earlier. The Experienced and Expert classes are divided into either Equipped or Non Equipped. All teams from the five classes are allowed to use an odometer application without becoming one of the Equipped classes. The Equipped classes are for those teams using equipment that automatically calculates any part of the equation:  $\text{Time} = \text{Distance} \times \text{Speed}$ , such as rally calculator apps, rally computer apps, stand alone rally computers, or Curtas. Specific equipment allowed to the various classes is found in Table 1 at the end of these General Instructions.

## **M. Teams and Additional People**

Each car must have a driver and a navigator, and no other passengers except children of the driver or navigator are allowed if less than 13 years of age. A child waiver must be signed by both parents. There shall be no two-way communication among competing teams.

Table 1. Allowable Rally Equipment by Class, SVR PCA

Equipment	Beginner	Experienced-Non Equipped	Experienced-Equipped	Expert-Non Equipped	Expert-Equipped
Clock	X	X	X	X	X
Pencil/paper	X	X	X	X	X
Electronic calculator	X	X	X	X	X
Odometer application	X	X	X	X	X
Phone mapping app	X	X	X	X	X
Electronic calculator (programmable)	X		X		X
Rally calculator app	X		X		X
Laptop with rally spreadsheet	X		X		X
Rally computer app, eg. Richta	X		X		X
Rally computer, eg. Alfa	X		X		X
Classic Equipment:					
Slide rule/circular rule, Stevens Wheel	X	X	X	X	X
Data tables	X	X	X	X	X
Mechanical calculator (Curta)	X		X		X
Mechanical, wheel mounted odometer	X	X	X	X	X

Examples:

- Odometer Applications: Mojo Odo, GPS Twin Odos, etc.
- Mechanical Odometers: Halda Tripmaster, Halda Twinmaster, RalleGT Twinmaster
- Navigation programs: Waze, Google Maps, Apple Maps, etc.
- Simple Rally Computer Applications: Richta, Mojo TSD Navigator (Android), Rally Tripmaster (Android), etc.
- Rally Computers: Alfa, TimeWise, Terratrip, Rabbit Rally 2.0, Halda Speedpilot, Zeron