

Zeroing the End of Rally or Leg

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After a rally team has passed the last hidden checkpoint, they are instructed to reach the end of rally, or Leg, and to request a time-in at the finish control. They don't care when you actually arrived! What's that all about? It's not that hard, actually, but here's the ultra-extended gory detail.

Many teams find they did very well driving the route mostly on time, improving their skill all the time at each rally, only to throw a good result away in the parking lot at the end! It's no way to win, and it's a worse way to lose. Sometime, look at the rally results for an event with a lot of competitors. The Experts will have lots of zeroes, especially at the end of the leg, or rally, at the finish control. As you move into Novices and Beginners the trend is to getting oddball scores at the final "ask for your time in" finish control. This is understandable, but preventable.

The routebook is typically structured like this:

- Instruction(s)
- Checkpoints here and there (not marked in routebook!)
- Instruction(s)
- Elapsed Time (ET) section to the Finish.

The easiest way to zero the finish control is: find the last on-route checkpoint, then drive away at your out-time at the CAS ('commence average speed') that was in effect when you found that checkpoint (normal procedure), obey some route instructions that may have different CAS's, then note your time at the beginning of the ET section to the finish. Get to the finish control before the elapsed time has passed, and ask the marshal for the time when the elapsed time is due to end. Theoretically, without calculations, you should get a zero, as long as you know what time you started the ET, and you managed to maintain CAS prior to that. Note that the ET section is always a liberal allowance of time that enables you to drive at legal speeds to the finish control, safely park, do some calculations, and walk inside to the marshal who will ask for your time-in. You usually have a few more minutes to spare if you don't get lost, so stay calm and you can zero the end of rally (or leg).

If you can't hit those average speeds after the checkpoint, or you don't want to, you can do some math. What about those calculations? Let's try an example.

Here is a routebook excerpt for the end of a rally:

34.46	2.1	TR onto Concession 8, CAS 50
36.70	2.24	AL onto Phibbs Side Road., CAS 72
42.12	5.42	SA, Johnson Rd., CAS 42
45.00	2.88	Pause 45 seconds. R onto Highway 15, ET 11 minutes to EOR
48.85	3.85	L into Petro Canada gas station. Ask the marshal, inside, for your time-in. EOR

The abbreviations are:

TR = tee right

AL = acute left

SA = straight ahead

R = right; L = left

ET (or CET) = Elapsed Time, or Commence Elapsed Time.

EOR = end of rally

What you don't see in your routebook is the LAST hidden checkpoint of the rally, after the acute left (AL) onto Phibbs Side Rd. which is located at official mileage 37.00 km.

The sequence of events is:

1. You make the acute left and find the CP at 37.00 km. No matter what any of your odometers say, this is the official distance of this checkpoint. The time that the rallymaster expects you to ask for your time in depends on THIS official distance at the LAST checkpoint!!! This official distance MUST be on the sticker you received. It is usually the number next to "Dist" And should be close to your odo (if you didn't get lost, slippage, etc.). Here is an empty sticker:

Control: _____	ET: _____
Sec: _____	Dist: _____
Car 0: _____	
Time in	Time out

2. Your sticker has your official time out from this checkpoint. Let's say that it is "Time out 4:56:00"
3. At 4:56:00 you drive away from the checkpoint and resume your CAS 72 for the next 2.24 kilometers. Keep following route instructions. When you enter the ET section you know there are no more checkpoints and the navigator should get busy calculating the time-in.
4. Calculate how long it should take to go from the CP to the instruction following it. Translation: How long does it take to travel 42.12-37.00 km = 5.12 km at CAS 50?

$$\begin{aligned} T1 &= \text{distance/speed} = \text{distance} \times (60/\text{CAS}) = 5.12\text{km} \times (60\text{min per hr} / 72\text{km per hr}) \\ &= 5.12 \text{ km} \times 1.2 \text{ minute/km} \\ &= 6.144 \text{ minutes (use DECIMAL minutes to the end, try to carry 3 decimals)} \end{aligned}$$

5. At 42.12 km you had to change your CAS to 42 kph until you reach the ET section. How long will it take to go from Johnson Rd to the ET section at Highway 15?

$$\begin{aligned} T2 &= \text{distance} \times (60/\text{CAS}) = 2.88 \text{ km} \times (60/42) \\ &= 2.88 \text{ km} \times 1.4286 \text{ minute/km} \end{aligned}$$

= 4.114 minutes

6. Now you reach Highway 15, and you need to add a pause of 45 seconds (the driver does not HAVE to pause, but you must account for it!).

$T_3 = 0.75$ minutes (that's 45 seconds = 45/60)

7. Now you are officially due to arrive in 11 minutes from the turn onto Highway 15.

$T_4 = 11.0$ minutes

8. So, now just add up all the times:

Total time = $T_1 + T_2 + T_3 + T_4 = 6.144 + 4.11 + 0.75 + 11.0 = 22.0$ minutes.

Remember to convert from decimal minutes to minutes now if the number isn't on an even minute. It would also help to recheck your math if you don't have an even minute here as most rallies end on even minutes.

9. Add this to your last CP Out-Time: $4:56:00 + 00:22:00 = 5:18:00$ (most finish controls end on top of the minute).

If the time 5:18 has not already gone by on the clock, you are doing well.

10. Say you actually arrive at the Finish Control, at 5:14:20. You have 3 minutes and 40 seconds to reach the Finish marshal and request a time in. This usually only a 30 to 60 second walk away.

**11. At the finish control table say the to marshal "My time in is 5:18"
Collect your ZERO. 😊**

If you are CLOSE to being late and are in a lineup at the finish control, yell out your time-in to the marshal! Get witnesses! Do apologise afterwards (but you got your rightful zero, hopefully).

If 5:18 has already passed, and your calculation was correct, you are indeed LATE, and you should immediately ask for the current time as your time-in to minimize the damage to your score!

This was a lengthy explanation to what is generally not a difficult task. However, I hope the detail helps you get more zeros!