

Correct procedure for good measurement performance

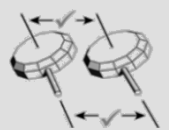
Start

Process flow (for fresh configuration)

Fresh configurations and installations

1 Install RT and antennas into vehicle

- Antennas must have good ground plane
- Excellent visibility of the sky
- Cables must exit the antenna in same orientation
- Antennas must be on the same angular plane



2 Bring vehicle to test area

- Good open sky conditions

3 Configure RT from Default

- Retain default measurement accuracies (0.100m & 5°)
 - NOTE: antenna separation should be measured as accurately as possible (0.5cm). This measurement does not improve with warm up
- Do NOT overestimate accuracies
- Configure advanced slip
- **NOTE:** Static initialisation is **not** recommended for Vehicle Dynamics testing

4 Reset / Power cycle RT



- This step is important because the INS spends the first 15 minutes following initialisation refining accuracies and reaching steady state operation

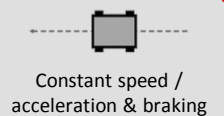
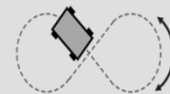


5 Dynamically initialise the RT

- Drive vehicle in straight line to reach configured threshold speed

6 Immediately complete 15 minutes warm up

- Complete a good warm up including:
 - Figures of Eight
 - Straight line driving at constant speed and acceleration/braking



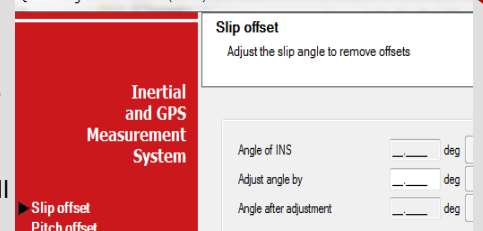
- **NOTE:** most of the warm up time should be spent completing manoeuvres

7 Zero Slip Offsets



- Use Quick Config in NAVdisplay to remove any misalignment
- **NOTE:** This will only be used in real time and ignored when post-processing, unless the configuration is committed **and** the RT reset. Following a reset, a full warm up (step 6) **MUST** be completed.

Quick Configuration - VINCom (Virtual)



8 Ready for accurate slip angle measurements



- Has the vehicle remained stationary for more than 10 minutes?
 - Yes - The RT has started to 'cool down', in which case complete an additional warm up before testing (3-5mins)
 - No - The RT is ready for accurate slip angle measurements



9 Complete Test work

10 Get settings and commit new improved settings

STOP

- Before switching off the RT e.g. at the end of the session or end of the day
 - Save the improved configuration to the RT, with the slip offset removed
 - **NOTE:** Next time the RT is used, a full warm up will need to be completed