



Lead-Follow Instructing Procedures

Tarheel Chapter BMW CCA Revision 2021.4.11.1

This document represents Tarheel Chapter's interpretation of Lead-Follow Instructing procedures. This evolved from a template provided by our friends at MSF. It is intended to be a Procedures and Guidelines resource for all instructors and event personnel at Tarheel Chapter events.

Notes to Chief Instructors/Organizers/Instructors/Students: Communication of the purpose and objectives for the Lead-Follow instruction is critical, and it needs to be understood throughout personnel (in-car instructors, classroom instructors, registrars, turn workers, etc.) and all students (whether they're participating in Lead-Follow or not).

The tone of the communication is also critically important, as it contributes to the culture of the event. If the message is, "Lead-Follow is only something we because we can't do what is the right thing to do," we are sending the wrong message. If it's, "This is a valuable addition to our instructing methods," we will be more successful.

The objectives and procedures for Lead-Follow instruction must be communicated early and often, that includes in the classroom sessions.

The success of Lead-Follow instruction comes down to the ability of the instructors leading the way. Like any skill, Lead-Follow instruction takes time to develop. It also requires training. But, once again, it begins with communication of the objectives and procedures.

OBJECTIVES (What are the key objectives for using Lead-Follow Instruction)

- Introduce the track to students in a safe manner
- Demonstrate the ideal cornering line to students
- Demonstrate the position and timing of various controls (i.e., when to brake, release the brakes, turn in and unwind the steering, accelerate)
- Control a student's pace to ensure they learn the skills safely before attempting to drive too fast

INTERNAL COMMUNICATION PLAN (How will the program be communicated to instructors)

- The L-F program will be introduced to all instructors through online video conference a minimum of 5 days prior to a HPDE event
- All instructors will receive and must read this Procedures document
- Instructors will be strongly encouraged to watch the [MSF's Lead-Follow Instructing Best Practices](https://youtu.be/qSUE4MwD4Ss) webinar (<https://youtu.be/qSUE4MwD4Ss>)
- Mandatory instructor meeting morning of HPDE event



INSTRUCTOR TRAINING & PREPARATION (How will instructors be trained to conduct L-F)

- Distribution of this document to all instructors
- Instructor must watch the [MSF Lead-Follow Instructing Best Practices](https://youtu.be/qSUE4MwD4Ss) webinar recording (<https://youtu.be/qSUE4MwD4Ss>)
- Online Q&A session with senior/guest instructors
- Morning-of-event meeting to answer questions and review procedures

PROCEDURES

(How will the L-F sessions operate)

Lead Instructor-to-Student/Car(s) Ratio:

- There should never be more than 2 following cars.

Staging: (How and where will the L-F groups be lined up and staged)

- Lead car/instructor meet with students/cars in paddock, review procedures, arrange to follow into pitlane
- Lead car with follow 1-3 car line up in pitlane, appropriately spaced
- Review/communicate procedures
- Recommend Lead/Instructor cars have prominent ID (large neon dot) on front and rear windows to help students ID lead/instructor cars on track.

Key Pre-Session Messages: (Instructors tell students in paddock prior to session)

- Purpose of this L-F session. Only 2-3 major objectives. Keep it simple.
- Make sure session primary objectives are far enough apart student has processing time to bank results of one before preparing to execute the next. (eg. Stevie Wonder, Hogpen, NASCAR) Don't choose turns 3,4 and 5 in the same session. Too much happening too quickly for them to retain it all to analyze later.
- Description of staging and line-up
- Description of the distance between cars (typically 3 car lengths), with example cars parked in paddock/pitlane this distance apart. Not so close they can't see Instructor tire hit Apex, not so far they're executing Turn-in while Instructor is already past Apex.
- Inform student their job is to stay in middle of instructor's rear-view mirror. Visualize following in "Snow Tracks".
- Description of how rotations will occur on track, where it will happen, and after how many laps
- What students should do if they have a problem, not sure what to do, or have a question
- What students should do if and when they see flags
- Group passing protocol (when appropriate).



On-Track Communication (What will be communicated to students, and how)

If there is no reliable communication system (radio, phone), describe hand signals that will be used:

- Hand out window and tapping roof above driver door briefly signals, “Follow Me.” If repeated, this means, “Follow Closer.”
- If open hand held straight up, this means “Ease off” to provide a larger space between cars. Easily mistaken for closed fist “Pit-In”. Make it prominently different
- Hand out the window and making a circular motion is the “initiate rotation” signal. The student originally behind the Lead car/instructor should point their peer student by and become the last car in the line. **(NOTE: This is not the procedure MSF advocates. They have the #2 car pull offline and retreat to the back of the group. We are not doing that.)**
- Hand out, pointing down to spot/reference that the student/following car should target (i.e., apex)
- Arm out at 90 degrees up and fist clenched indicates exiting the track for the pitlane/paddock. Make this prominently different from open hand “ease off” signal.
- If you have radios, consider introducing them later. One less thing to distract students in early sessions that should be at lower pace and no stress.

Number of Laps per Student/Session:

- Two laps behind the Lead car, then rotate to the next car for 2 laps, then rotate again, every 2 laps

Rotation Procedure

- When signaled by Lead instructor (#1 car in group), the car immediately following (#2 position in group) will give a standard point-by to their peer student (#3 car) and assume the last position in the group.

Emergency Procedure (What do if something goes wrong)

- If student has a problem, they should initially flash headlights to signal to Lead instructor
- Exit track, pull into pitlane, stop, and wait for Lead instructor
- If off-track excursion, use regular event procedures

Group Passing Protocol (Instructor initiated when you see a group/car behind you want to let through)

- Similar to our Exercise passing protocol
- Lead Instructor gives point-by signal and stays on line
- Students in tow check mirrors and give the same point-by signal
- Overtaking (faster) group passes off line, mindful of points being given



Post-Track Session Debrief (What should be communicated and drawn out of the students)

- Address any questions
- Ask about challenges
- Provide specific feedback to each student based on observations
- Ask students what they learned
- Ask students why they drove the line they did
- Ask more than you tell the students – listen more than you talk. Facilitate learning.
- Request Students input on what worked or could be improved so you can make immediate adjustments.

INSTRUCTOR

Your role:

- Clearly communicate procedure to students pre-session
- **Set an example by driving the ideal line, and demonstrating when and where you use the controls (brakes, steering wheel, throttle)**
- Observe and keep mental note of student(s)' driving so you can provide feedback
- Control speed to ensure safety
- Keep the distance between cars appropriate. If student does not appear to be able to keep up, slow down; if you do this twice and the student still is too far behind, they likely don't understand how close you want them, and a short discussion in pitlane is needed. If the student appears to be hanging back to get a fast run through a section of track, first, slow down to control this; if this continues, pit to discuss with student
- It is critical that you only brake where you would normally want the students to brake. If you brake early, or not at all, the student(s) will copy. Remember one of the objectives is to demonstrate when and where to do specific techniques, such as braking, brake release, turning and unwinding the steering wheel, and accelerating.
- Post-session debrief
- Build a trusting relationship with students

Driving pace:

- There are 3 levels of pace when driving the Lead car:
 1. Slow
 2. Medium
 3. Moderate

There are no high-speed L-F sessions. Think 5/10ths, 6/10ths, 7/10ths pace tops.



Session Plans:

- Start slowly and build up comfort/confidence
- No more than 3 specific goals per session
- First/Second session
 - Take it easy
 - **NO Group Passing**
 - Focus on Line/Landmark Objectives
 - Practice student rotations
- Third/Fourth session
 - Mild pace increase
 - Group Passing allowed
 - Don't get carried away. Speed is not an objective of L/F.
 - **If instructor assessment makes it reasonable, have students be the lead car in a session late Saturday or Sunday**

Notes for Instructors:

Remember “slow” can feel very fast to a new driver. When the student is able to drive on their own, they will drive at what they felt was the same speed – but will likely drive faster because your Lead pace felt fast.

Never forget the objectives: To demonstrate the ideal line and the timing and position of various use of controls (when to brake, end braking, turn into the corner, begin to accelerate, etc.). The objective is not to demonstrate your superior driving ability. This is not a pace exercise.

As the Lead instructor, you must drive the ideal line, while observing your student(s) in your mirrors. Drive at a pace that you can do both at a high level, even if that means you slowing down. It's more important to demonstrate the right line and techniques, and to be a model for your students, than it is to drive quickly.


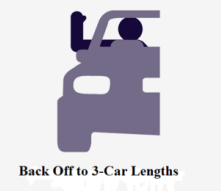



This task takes a high level of concentration. However, this should not be any higher than what you use when doing in-car instruction; just different. Because it's different, it may take a little time for you to get comfortable with it. It's a great skill to learn for yourself!

Consider pairing with another Instructor to share experiences throughout the weekend. You may consider swapping students with another instructor to better match skills and pace of the two students following you.

We may place an experienced scout instructor on track to observe and later debrief L/F Instructors on what they observed.



Lead/Follow Instructor Hand Signals

<p>Follow Instructor or Catch-Up:</p> <p><i>Tapping Roof</i></p>	 <p>Roof Tap Follow Me</p>
<p>Back Off to 3-car lengths:</p> <p><i>Open Hand Out Window</i></p>	 <p>Back Off to 3-Car Lengths</p>
<p>Rotate One Car:</p> <p><i>Helicopter Finger</i></p>	 <p>Rotate One Car</p>
<p>Move to Specific Track Location:</p> <p><i>Pointing Down</i></p>	 <p>Place Car Here</p>
<p>Go to Pit:</p> <p><i>Vertical Fist Out Window</i></p>	 <p>Fist Out: Go To Pit Lane</p>

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Lead-Follow Instructing Procedures Tarheel Chapter BMW CCA Revision 2021.4.11.1 SUMMARY SHEET

(print these key items to have with you in the paddock)

Key Pre-Session Messages: (What Instructors tell students prior to session)

- Purpose of this L-F session. Only 2-3 major objectives. Keep it simple.
- Description of staging and line-up
- Description of the distance between cars (typically 3 car lengths)
- Inform student their job is to stay in middle of instructor's rear-view mirror. Visualize following in "Snow Tracks".
- Description of how rotations will occur on track, where, and after 2(?) laps
- What to do if student has a problem (PIT), not sure what to do, or has a question
- What students should do if and when they see flags
- Group passing protocol (when appropriate).

Hand Signals

If there is no reliable communication (radio, phone), describe hand signals being used:

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