

**August 23rd, 2024**

## **Technical Service Bulletin – 14**

The Darkhorse R owner's manual has been updated with additional detail and clarifications regarding the automatic downshift rev matching strategy.

**Action: The team owners must inform their drivers of the following description change in the owner's manual.**

### **Rev Match Functionality**

- The downshift auto rev match switch must be turned on for the rev match strategy to enable.
- Downshift auto rev matching is disabled for a 2 -> 1 downshift.
- The maximum target rpm of an auto rev matched downshift is limited to 7350 rpm. This applies to over revving conditions caused by down shifting too early.
  - If the synchronous engine speed of the selected gear is above 7350 rpm, the auto rev matching strategy will only lift the rpm to the 7350 rpm limit.
  - As the car slows under braking, the auto rev matching strategy will follow the synchronous engine speed once it is below 7350 rpm and the clutch pedal is still depressed. The auto rev match strategy is "in control" of engine speed at this point.
  - Once the auto rev match strategy is in control and the engine speed is below 7350 the driver may release the clutch pedal and complete the shift.
  - If the clutch is released before the controlled engine speed drops below 7350 rpm, the engine speed will be pulled up by the inertia of the driveline. This can potentially damage hardware components.

**Warning:** Similar to a vehicle with automatic downshift rev matching disabled, it is the driver's responsibility to downshift in a manner that does not cause the engine speed to violate its maximum limit.