

# FORD PERFORMANCE



**March 6, 2025**

## **Technical Service Bulletin – 40**

### **Mustang Dark Horse R Tire Circumference Update**

**Issue:** For the 2025 racing season, the tire circumference value will be different from the previous season and will also be different between the Challenge and Cup series.

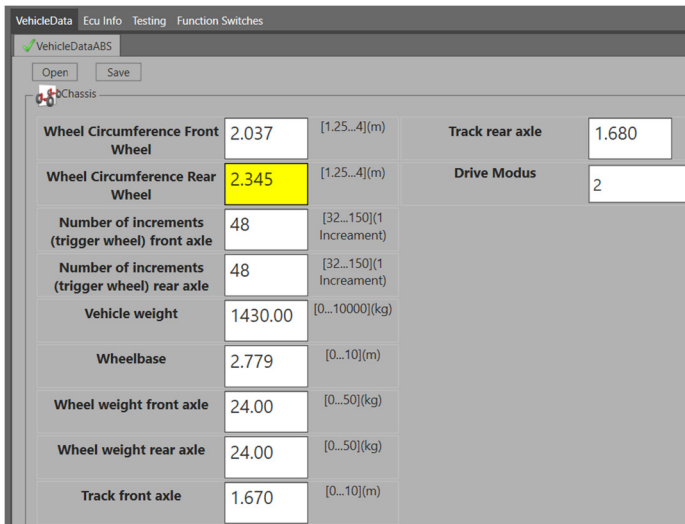
**Action:** Follow the procedure below to update the MoTeC C187 and Bosch ABS tire circumference values – it is required to update both systems for proper operation.

**Procedure: Update the tire circumference in both the Motec C187 dash and the Bosch ABS module**

#### **Changing the Tire Circumference in the ABS Module**

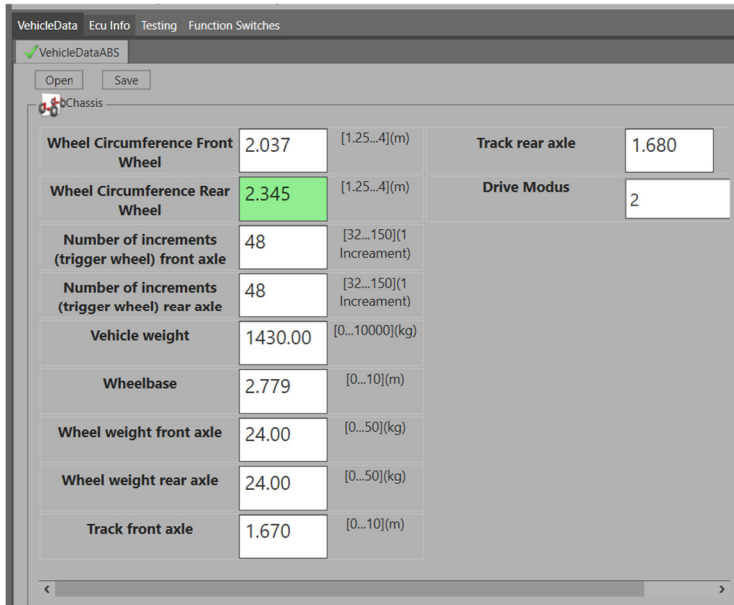
1. Open RaceABS and navigate to the 'Vehicle Data' page.
2. To change the Wheel Circumference value, simply type the value into the appropriate box. The box will turn yellow if the value has been changed.

**The tire circumference constant value on the MoTeC system MUST match the REAR tire circumference value used in RaceABS. The MoTeC value units are in millimeters (mm) and the RaceABS value units are in meters (m)**



\*The 2.345 value shown is for example only\*

- For the change to take effect, press [ENTER] after typing the value. The box will turn green to confirm the change has taken effect and saved properly.



\*The 2.345 value shown is for example only\*

- It is recommended to do a key cycle to confirm that the changes properly saved in RaceABS.

**NOTE: For the Mustang Challenge Michelin Tire and Mustang Cup Yokohama Tire options, the correct tire circumference values can be found in the ABS chart in the Darkhorse R Owner's manual. The chart is also provided at the end of this TSB.**

**Using incorrect tire circumferences will degrade ABS performance and is not homologated. Altering any other values on the Vehicle Data page is not homologated and will degrade ABS performance.**

**The default tire circumference values in the 'FordDHR\_v02' calibration are for the Mustang Challenge Michelin Dry Tire.**

## Change the Tire Circumference in the C187 Dash

5. Open the C187 Dash Manager with the latest configuration file.
6. Select the 'Connections' button as shown in Figure 1 and navigate to the 'Constants...' section.

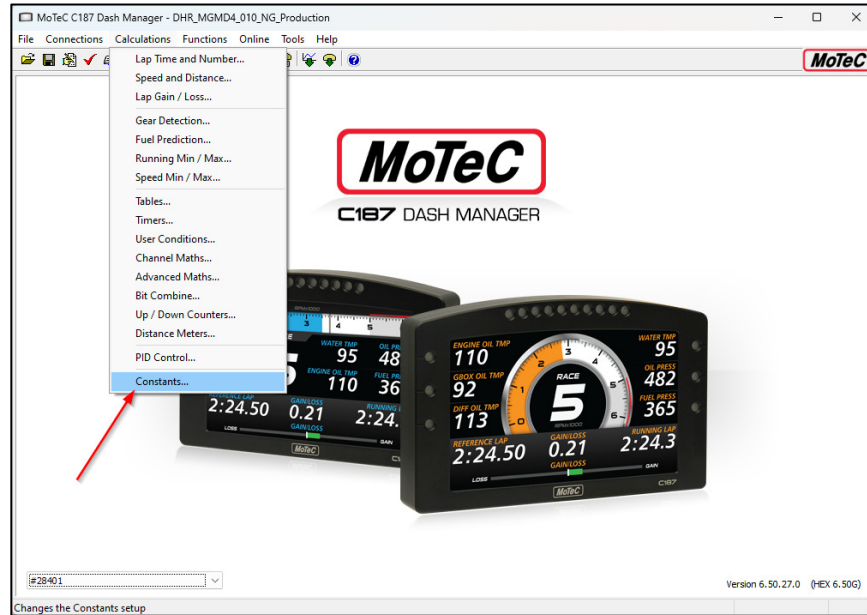


Figure 1: Constants location in Dash Manager

7. From here select 'l\_tire\_circ' from the constants list and click the 'Change...' button as shown in Figure 2.

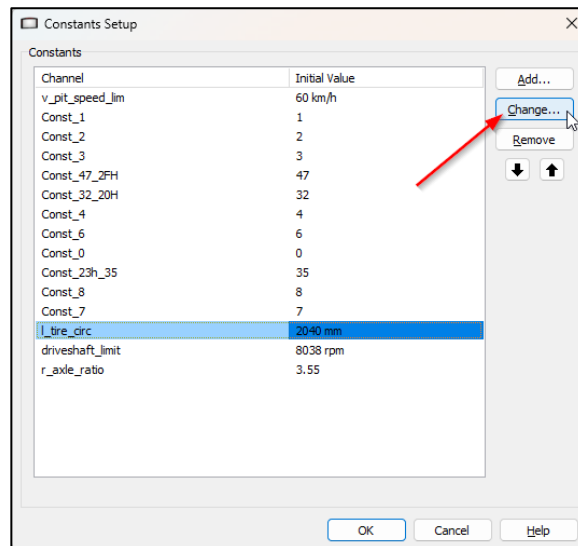


Figure 2: Changing the tire circumference value

8. Populate this with the desired tire circumference value and select 'OK' in both windows. Save the change to the configuration file and send the configuration to the dash using the traditional flash procedure outlined in section 4.2 of the owner's manual.

**The tire circumference constant value on the MoTeC system MUST match the REAR tire circumference value used in RaceABS. The MoTeC value units are in millimeters (mm) and the RaceABS value units are in meters (m)**

## Mustang Dark Horse R Bosch M5 ABS Calibration

Calibration Set: FordDHR_v02			
Map	Preferred Tire and RaceABS Tire Circ.	Description	Notes
1	-	Heavy wet conditions	Earliest system activation, most amount of intervention
2	Michelin Wet Calibration F: 2.047 R: 2.047	Michelin Wets	Preferred map for Michelin wet tires
3	Yokohama Wet Calibration F: 2.113 R: 2.113	Yokohama Wets	Preferred map for Yokohama wet tires
4	Michelin Dry Calibrations F: 2.037 R: 2.040	Michelin medium grip, greatest lateral support	Intended to help with rear instability with Michelin tires while in ABS. Lower slip and less rear slip allowed with lateral accel.
5		Michelin medium grip, more lateral support	Intended for lower grip tracks while on Michelin tires. Lower overall slip and more lateral support compared to Map 6.
6		<u>2025 Michelin Default</u>	<u>Preferred Michelin tire calibration</u>
7		Michelin high grip	Intended for sticker Michelin tires at optimum temp. Higher overall slip allowed compared to Map 6 with less lateral support.
8	Yokohama Dry Calibrations F: 2.125 R: 2.125	Yokohama low grip, higher lateral support	Intended to help with rear instability with Yokohama tires while in ABS. Lower slip and less rear slip allowed with lateral accel.
9		Yokohama medium grip	Intended for lower grip tracks while on Yokohama tires. Lower overall slip allowed compared to Map 10.
10		<u>2025 Yokohama Default</u>	<u>Preferred Yokohama tire calibration</u>
11		Yokohama high grip	Intended for sticker Yokohama tires at optimum temp. Higher overall slip allowed compared to Map 10.
12	OFF		