

Calibration of the Throttle Position Sensor (TPS) Generation 2 VCM (625-08995)

Model(s) Included: Mustang 42E XP (34ABB2CSB66)

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Pre Calibration Steps:

- 1. Park the mower on a flat level surface. Chock the rear wheels.
- 2. Equal air pressure and tire size is important on zero turn mowers and is especially important for the electrically powered drive motors. Check and maintain both rear tires at 10 psi and the front tires at 20 psi.
- 3. Confirm both lap bar drive control lever stop adjustment bolts are adjusted all the way out. Bolt must be flush with the end of the Rivnut. See Figure 2.



FIGURE 1

4. Confirm the lap bars are aligned evenly across from each other by adjusting the knobs shown in Figure 2.



FIGURE 2

5. In a large area free of bystanders and obstacles, drive the mower in both "LOW SPEED PRECISION DRIVE" and "STANDARD DRIVE" modes. Operate the mower through turns, stops, and starts. If the experience is unsatisfactory in the operation of the mower proceed to the "CALIBRATION STEPS" on the following page.

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INSTRUCTION SHEET

IMPORTANT: The brake must be released. **DO NOT** touch the brake pedal during any part of the calibration procedure. **NOTE:** *If during the calibration procedure an error code shows up on the screen; remove the key, start the calibration procedure over at Step 1.*

Calibration Steps:

- 1. Chock the rear wheels.
- 2. Insert the key into the key slot.
- 3. Place both lap bars in the "**OUTWARD**" position.
- Simultaneously press and hold the ECO and DOME SWITCH



buttons for 7 seconds or until the screen displays ${\bf F}~{\bf N}~{\bf R}.$

Release both buttons.

NOTE: If the VCM will not accept calibration inputs, remove the key, repeat Steps 2 through 4. If the VCM still will not accept calibration inputs contact your local Craftsman Service Dealer.

- 5. Leave the right lap bar in the "**OUTWARD**" position and move the left lap bar to the inward "**NEUTRAL**" position.
- 6. Move the left lap bar forward until it hits a hard stop on the lap bar drive control lever stop adjustment bolt.
- 7. Press the LOW SPEED PRECISION DRIVE button.



- 8. Release the lap bar and allow it to return to the "**NEUTRAL**" position.
- 9. The "**F**" on the screen now has a box around it as seen in Figure 3.



FIGURE 3

10. Place the left lap bar in the "**OUTWARD**" position and press the **START** button.



11. The **"F" & "N"** on the screen will have a box around them as shown in Figure 4.



FIGURE 4

12. Move the left lap bar to the **"NEUTRAL**" position an pull rearward until it hits a hard stop. Press the **PTO** button.



NOTE: An error code will display after 7 seconds of holding down; Press and release the PTO button.

 The FN R display will disappear and the screen will switch to the start screen as shown in Figure 5. This indicates the calibration for the left lap bar has been completed and saved.





14. Release the lap bar and allow it to return to the "**NEUTRAL**" position.



INSTRUCTION SHEET

- 15. For the right side lap bar calibration, proceed as follows.
- 16. Place both lap bars in the "OUTWARD" position.
- 17. Simultaneously press and hold the PTO and DOME

SWITCH buttons for 7 seconds or until the screen displays F N R as shown in Figure 6.









- 18. Release the PTO and DOME SWITCH buttons.
- 19. Leave the lap bar in the "OUTWARD" position and move the right lap bar to the inward "NEUTRAL" position.
- 20. Move the right lap bar forward until it hits a hard stop on the lap bar drive control lever stop adjustment bolt.
- 21. Press the LOW SPEED PRECISION **DRIVE** button.



- 22. Release the lap bar and allow it to return to the "NEUTRAL" position.
- 23. The "F" on the screen now has a box around it as seen in Figure 7.



FIGURE 7

24. Place the right lap bar in the "OUTWARD" position and press the **START** button.



25. The "F" & "N" on the screen will have a box around them as shown in Figure 8.



FIGURE 8

26. Move the right lap bar to the "NEUTRAL" position and pull rearward until it hits a hard stop. Press the **PTO** button.



NOTE: An error code will display after 7 seconds. Press and release the PTO button.

27. The **FNR** display will disappear and the screen will switch to the start screen as shown in Figure 9. This indicates the calibration for the right lap bar has been completed and saved.



FIGURE 9

- 28. Release the lap bar and allow it to return to the "NEUTRAL" position.
- 29. After performing the calibration procedures for both lap bars, test drive the mower in a large area in both drive modes to verify the recalibration is satisfactory.