

# **1994-10 MUSTANG Speed Calibrator INSTALLATION INSTRUCTIONS**

## **Installation Steps:**

1. Using the ratio multiplier table, determine the correct ratio multiplier and enter the binary code into the Speed Calibrator. Then, attach the cover using the supplied screws.
2. Remove the vehicle negative battery cable.
3. Inside the vehicle passenger compartment, remove the shifter knob, outer shift boot, and inner shift boot. It is generally easier to disconnect the cigarette and traction control (if applicable) switches from the plastic housing and set the housing aside to facilitate installation. The outer boot is merely snapped into place and can be easily removed by grasping firmly on each side of the shifter and pulling straight up and away from the console. The inner boot uses four 8mm bolts for attachment.
4. Route the Speed Calibrator harness down the driver's side of the transmission and re-install the inner boot. Route the Speed Calibrator harness to the back of the inner boot.
5. Connect the Red wire of the Speed Calibrator to the cigarette lighter hot wire and with the provided scotch lock. As an example, on a '99 and up latemodel Mustang this should be a blue/white wire.
6. Center the Speed Calibrator ahead of the shifter and reinstall the outer boot and shifter knob.
7. Under the Mustang, locate and remove the VSS connector on the driver's side of the transmission.
8. Using a small flat bladed screwdriver or a thin punch, CAREFULLY remove the red contact lock inside the connector shell. CAREFULLY slide the screwdriver / punch down the side of each contact to disengage the contact retainer and remove both contacts from the connector shell.
9. Place the VSS connector shell removed in the previous step onto the Speed Calibrator blue and green wires. Keying is not critical.
10. Push the contacts into the connector shell until the contact retainers engage. Usually, a faint "click" will be heard for each contact retainer engagement. Re-insert the red contact lock.
11. Reconnect the VSS connector that is now installed on the Speed Calibrator to the transmission.
12. In the Mustang's harness VSS wire pair, determine which of the two wires is the ground wire. On a late 94-98 model Mustang this should be a pink/orange wire. On a 99-up Mustang, this should be a gray/red wire.
13. Find the supplied connector shell in the Speed Calibrator installation kit. Using the connector shell keys as a guide, align the ground wire so it will mate with the Speed Calibrator gray wire when the two connectors are mated.
14. Insert the remaining vehicle harness wire into the remaining connector location. Again, push the contacts into the connector shell until the contact retainers engage. A faint "click" should be heard upon engagement. Insert the supplied red key lock into the connector shell.
15. Connect the vehicle harness to the Speed Calibrator connector. Insure the contacts align per step 13. Tie excess wiring and cable harness with zip ties.
16. Reconnect the battery terminal and drive the Mustang. Insure your Mustang speedometer is functional. If possible, pace the Mustang against a vehicle with a known reasonably accurate speedometer.

## **NOTES:**

1. If the vehicle speedometer ever malfunctions, disconnect the vehicle negative battery terminal, wait approximately 30 seconds, and reconnect the battery. This is required to "cycle power" to the Speed Calibrator as the cigarette lighter is an unswitched accessory outlet.
2. When wired per these instructions, the Speed Calibrator is always powered. The Speed Calibrator power consumption is minimal and will not introduce noticable vehicle battery power drain. It should be noted that portions of the Vehicle EEC are also connected in this fashion so this is not an unusual installation procedure. If the installer desires to use a switched accessory outlet, consult the shop manuals particular to the target Mustang and choose a switched accessory signal to tie into. The Speed Calibrator will perform just the same from switched power as from unswitched power.
3. The Speed Calibrator is capable of speedometer adjustments in increments of 0.2% and will provide accurate vehicle speed data above the displayed speedometer value (160mph for a late model Mustang Cobra). In order to retain this accuracy care should be taken in determining the correct binary code as the Speed Calibrator cannot provide accurate speedometer readouts with an incorrect ration multiplier selection.

## Speed Calibrator Instructions

Stock Ratio	New Ratio	Switch Settings	Stock Ratio	New Ratio	Switch Settings	Stock Ratio	New Ratio	Switch Settings
3.27	6.33	0011111000	3.08	6.33	0100000111	2.73	6.33	0100101001
3.27	6.20	00111110011	3.08	6.20	0100000010	2.73	6.20	0100100011
3.27	6.14	00111110000	3.08	6.14	0011111111	2.73	6.14	0100100000
3.27	6.00	00111101011	3.08	6.00	00111111001	2.73	6.00	0100011001
3.27	5.83	00111100100	3.08	5.83	00111110010	2.73	5.83	0100010001
3.27	5.67	0011011110	3.08	5.67	00111011100	2.73	5.67	0100001010
3.27	5.57	0011011010	3.08	5.57	0011100111	2.73	5.57	0100000101
3.27	5.50	0011010111	3.08	5.50	0011100101	2.73	5.50	0100000010
3.27	5.43	0011010101	3.08	5.43	0011100010	2.73	5.43	0011111111
3.27	5.30	0011001111	3.08	5.30	00110111100	2.73	5.30	00111111000
3.27	5.29	0011001111	3.08	5.29	00110111100	2.73	5.29	00111111000
3.27	5.25	0011001110	3.08	5.25	0011011010	2.73	5.25	00111110110
3.27	5.14	0011001001	3.08	5.14	0011010110	2.73	5.14	00111110001
3.27	4.88	0010111111	3.08	4.88	0011001011	2.73	4.88	0011100101
3.27	4.86	0010111110	3.08	4.86	0011001010	2.73	4.86	0011100100
3.27	4.78	0010111011	3.08	4.78	0011000111	2.73	4.78	0011100000
3.27	4.71	0010111000	3.08	4.71	0011000100	2.73	4.71	0011011101
3.27	4.57	0010110011	3.08	4.57	0010111110	2.73	4.57	0011010110
3.27	4.56	0010110010	3.08	4.56	0010111110	2.73	4.56	0011010110
3.27	4.50	0010110000	3.08	4.50	0010111011	2.73	4.50	0011010011
3.27	4.44	0010101110	3.08	4.44	0010111001	2.73	4.44	0011010000
3.27	4.30	0010101000	3.08	4.30	0010110011	2.73	4.30	0011001010
3.27	4.22	0010100101	3.08	4.22	0010101111	2.73	4.22	0011000110
3.27	4.11	0010100001	3.08	4.11	0010101011	2.73	4.11	0011000001
3.27	4.10	0010100000	3.08	4.10	0010101010	2.73	4.10	0011000000
3.27	4.00	0010011101	3.08	4.00	0010100110	2.73	4.00	0010111100
3.27	3.91	0010011001	3.08	3.91	0010100010	2.73	3.91	0010110111
3.27	3.89	0010011000	3.08	3.89	0010100010	2.73	3.89	0010110110
3.27	3.80	0010010101	3.08	3.80	0010011110	2.73	3.80	0010110010
3.27	3.75	0010010011	3.08	3.75	0010011100	2.73	3.75	0010110000
3.27	3.73	0010010010	3.08	3.73	0010011011	2.73	3.73	0010101111
3.27	3.70	0010010001	3.08	3.70	0010011010	2.73	3.70	0010101101
3.27	3.64	0010001110	3.08	3.64	0010010111	2.73	3.64	0010101011
3.27	3.56	0010001011	3.08	3.56	0010010100	2.73	3.56	0010100111
3.27	3.55	0010001011	3.08	3.55	0010010100	2.73	3.55	0010100110
3.27	3.50	0010001001	3.08	3.50	0010010001	2.73	3.50	0010100100
3.27	3.27	0010000000	3.08	3.27	0010001000	2.73	3.27	0010011001
3.27	3.10	0001111001	3.08	3.10	0010000001	2.73	3.10	0010010001
3.27	3.08	0001111001	3.08	3.08	0010000000	2.73	3.08	0010010000
3.27	2.73	0001101011	3.08	2.73	0001110001	2.73	2.73	0010000000