AGRICULTURAL ●
AUTOMOTIVE ●
INDUSTRIAL ●
MARINE ●
TRUCK ●
BUS ●

Speedometer Calibration Instructions

1. Determine expected pulses per mile of speedometer signal.

   PULSES PER MILE = AXLE RATIO X TIRE REVS/MILE (NOTE 2) X NUMBER OF PULSES/REV OF PULSE GENERATOR

   Example: AXLE RATIO = 3.9:1
   TIRE REVS/MILE = 491
   PULSES/REV OF PULSE GENERATOR = 16
   PULSES PER MILE = 3.9 X 491 X 16 = 30638.4

2. Determine N in the expression below:

   $$N = \frac{\text{PULSES PER MILE} - 10{,}000}{25}$$ Example: $N = \dfrac{30638.4 - 10{,}000}{25} = 825.536$

3. Round N to the nearest whole number (Example 825.536 to 826).

4. Close all switches (See switch setting detail).

5. Subtract largest possible number in switch table from N which does not result in a negative remainder. Table number = 512......OPEN SWITCH 3.
   Example: 826 (N) - 512 (Table number) = 314 (Remainder)

6. Repeat step 5 using the remainder until the result is zero.

7. Remainder from step 5 = 314, table number = 256........................OPEN SWITCH 4.

8. Remainder from step 7 = 58, table number = 32............................OPEN SWITCH 7.

9. Remainder from step 8 = 26, table number = 16............................OPEN SWITCH 8.

10. Remainder from step 9 = 10, table number = 8............................OPEN SWITCH 9.

11. Remainder from step 10 = 2, table number = 2............................OPEN SWITCH 11.

12. Remainder equals zero. Switch code is 3, 4, 7, 8, 9, 11.

13. End of calibration.

14. Calibration check:

   $$\frac{\text{PULSES PER MILE}}{60} = \text{Hertz @ 60 MPH}$$

   $$\frac{\text{PULSES PER MILE}}{57.93} = \text{Hertz @ 100 km/h}$$

⚠ **NOTES**

1. Switch code is only read during speedometer power up. Changes to the switch code while power is applied will have no effect until power is removed and reapplied.
2. Contact tire manufacturer for tire revolutions per mile.

SWITCH TABLE	
Switch Position	Table Number
1	2048
2	1024
3	512
4	256
5	128
6	64
7	32
8	16
9	8
10	4
11	2
12	1

SWITCH POSITIONS 1 THRU 8 ARE SHOWN IN THE <u>OPEN</u> POSITION

SWITCH POSITIONS 9 THRU 12 ARE SHOWN IN THE <u>CLOSED</u> POSITION

RANGING SWITCH SETTING DETAIL