Step-by-step for setting Yellow Box v5 speedo correction.

(Part A) Total Speedo Error FORMULA:
Easiest is to compare your vehicle speedo reading to a GPS reading, while travelling along at at steady, constant GPS speed.

Total speedo error ratio = indicated speed / actual speed
Total speedo error ratio = indicated SPEEDO speed / actual GPS speed

eg1. TOO FAST SPEEDO.
Total speedo error = indicated / actual = SPEEDO/GPS
= 30 mph / 27 mph = 1.1111 (or 11.11% too fast speedo)

eg2. TOO SLOW SPEEDO.
Total speedo error = indicated / actual = SPEEDO/GPS
= 30 mph / 34 mph = 0.8824 (or 88.24% - 100.00% = - 11.76% too slow speedo)

To correct for the total speedo error you actually set your Yellow Box TO YOUR TOTAL SPEEDO ERROR. This may seem confusing. Hopefully below steps may help make more sense.

Total speedo error Notes (from total speedo error formula above);

100.00% (ratio 1:1 or 1.0000) = fully accurate speedo = no correction.

Over 100.00% (ratio 1:1.xxxx or 1.xxxx) = speedo reads too fast
(eg. total speedo error ratio 1.1659 or 116.59% = 116.59% - 100.00% = 16.59% too fast speedo).
To correct for 16.59% too fast speedo = set YB to +16.6%.

Under 100.00% (ratio 1:0.xxxx or 0.xxxx) = speedo reads too slow
(eg. total speedo error ratio 0.9659 or 96.59% = 96.59% - 100.00% = -3.41% too slow speedo)
To correct for -3.41% too slow speedo = set YB to -3.41%.

(Part B) Yellow Box v5 current correction setting (skip this section for a new Yellow Box);

What is your Yellow Box v5 correction setting now? RED LED flash sequence.
If not yet set any correction your YB will be 100.00% = zero correction.

When the Yellow Box v5 first powers up BOTH LEDs will flicker to
show all internal tests are passed ok. Then the RED LED will display the
correction ratio setting as a continuous series of 5 sets of flashes.
Zero is a long flash, digits 1 to 9 is 1-9 fast flashes correspondingly.

eg.
RED LED flashing the correction setting stored inside Yellow Box v5;
Setting 100.00% = no correction = ONE, LONG, LONG, LONG, LONG, LONG
Setting 112.40% = 12.4% too fast speedo = One, One, Two, Four, LONG
Setting 094.20% = -5.80% too slow speedo = LONG, Nine, Four, Two, LONG.
Setting 076.67% = -23.33% too slow speedo = LONG, Seven, Six, Six, Seven.

The RED LED flash sequence will tell you what correction your Yellow Box is currently set to.

If you let me know your current YB5 correction setting I can provide the below steps for your actual change required. (no need for this, other than for your curiousity, as your GPS test results cover the below)

(Part C) Adjusting the current YB5 correction setting; (Please read through all the below first before commencing).

If at any point you get lost or think that you made a mistake, simply power down (ignition OFF) your YB (before both LEDs flicker) and the changes that you made will not be saved. Then start all over again... :)

Basically you set your Yellow Box v5 (YB5) TO YOUR TOTAL SPEEDO ERROR.

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eg1. TOO FAST SPEEDO.
Total speedo error = indicated speed / actual speedo = SPEEDO/GPS
= 30 mph/27 mph = 1.1111 (or 11.11% too fast speedo)

So we need to set Yellow Box v5 to +11.11%. For simplicity round to +11.1%.

Adjust YB5 correction setting;
1. HOLD BOTH YB5 (+) and (-) BUTTONS for 5 seconds until both LEDs flicker.
The Yellow Box is now in adjustment mode.

2. Each second holding the (+) button the RED LED will flash slowly, HOLD for 11 seconds or 11 RED flashes. (Note: For large % settings the YB increases the speed of the flashes, so best to HOLD for a count of 10, release, then HOLD again for a count of 10 etc. Counting to 11 in one go the RED LED flash rate should be fine, if going to 30 it would flash too fast to count).

HOLD the (+) button for 10 seconds (count 10x RED LED flashes) to add +10.0%, release momentarily, then HOLD the (+) button again for 1 second (count 1x RED flashes) adds the next +1.0%. Total +11.0% added.

3. TAP the (+) button 1 time to add 0.1%. Each tap (+) is a quick RED flash.
For 1x (+) button taps you add +0.1%, (1x RED quick flashes).
TOTAL +11.5% ADDED.

4. WAIT for a few seconds until both LEDs flicker, the settings are now saved.
5. Power down your Yellow Box to exit adjustment mode.

Fine adjustment to 0.01% can be done as per the YB5 instructions. Need a friend to help as setting with a moving vehicle.

Your Yellow Box should now flash 11110 (100.00% + 11.1% = 111.10%) (we corrected for/set to +11.1% TOO FAST speedo) when power up RED LED flash = ONE, 1, 1, 1, LONG.

Best of luck with it. Please let me know how it goes. I hope the above makes sense and I have not confused things more...

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eg2. TOO SLOW SPEEDO.
Total speedo error = indicated speed / actual speedo = SPEEDO/GPS
= 30 mph/34 mph = 0.8824 (or 88.24% - 100.00% = - 11.76% too slow speedo)

So we need to set Yellow Box v5 to -11.76%. For simplicity round to -11.8%.

Adjust YB5 correction setting;
1. HOLD BOTH YB5 (+) and (-) BUTTONS for 5 seconds until both LEDs flicker.
The Yellow Box is now in adjustment mode.

2. Each second holding the (-) button the GREEN LED will flash slowly, HOLD for 11 seconds or 11 GREEN flashes. (Note: For large % settings the YB increases the speed of the flashes, so best to HOLD for a count of 10, release, then HOLD again for a count of 10 etc. Counting to 11 in one go the GREEN LED flash rate should be fine, if going to 30 it would flash too fast to count).

HOLD the (-) button for 10 seconds (count 10x GREEN LED flashes) to remove -10.0%, release momentarily, then HOLD the (-) button again for 1 seconds (count 1x GREEN flashes) removes the next -1.0%. Total -11.0% removed.

3. TAP the (-) button 8 times to remove 0.8%. Each tap (-) is a quick GREEN flash.
For 8x (-) button taps you remove -0.8%, (8x GREEN quick flashes).
TOTAL -11.8% REMOVED.

4. WAIT for a few seconds until both LEDs flicker, the settings are now saved.
5. Power down your Yellow Box to exit adjustment mode.

Fine adjustment to 0.01% can be done as per the YB5 instructions. Need a friend to help as setting with a moving vehicle.

Your Yellow Box should now flash 08820 (100.00% - 11.8% = 088.20%) (we corrected for/set to -11.8% too slow speedo) when power up RED LED flash = LONG, 8, 8, 2, LONG.

Best of luck with it. Sorry it is such a fiddly procedure for negative correction. Please let me know how it goes. I hope the above makes sense and I have not confused things more...

Hope the above helps. Sorry for information overload.

Thank you.

Best regards,
jennifer

Yellow Box Speedo Recalibrator - Correcting speedometers worldwide since 1999.
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