INTRODUCTION

The TC-HD Series Corrector fits Harley Davidson and the Harley Davidson Sportster electronic Speedometer/Odometer: HD1 for Sportster 2005-UP, HD2 for 1995-2004 & 1995-2006 Harley Davidson with triangular shaped "Deutsch" brand connector.

'95-'04 Sportster & '95-'06 Harley

2005-Up Sportster

Speed Sensor Location

The Corrector plugs into the existing male Speed Sensor. The Corrector is held to your wiring harness with cable ties, provided. The Corrector has a button and two LED's, red and green. These colors are used for the adjustment to the chip; red, green, and both (looks ORANGE). You calculate a three digit "Correction Factor" and then input that Factor into the chip by using the button and LED colors.

CORRECTION FACTOR METHODS

All Factors for entry are three digits [**XXX**]. All three digits must be entered. If there is no number for a digit, enter "0", such as 085 for 85 or 080 for 80. If your speedometer was previously incorrect, use the GPS Road Distance method.

- **Ratio Comparison:** This is the easiest method. It will give you factory accuracy. Calculate percent change as "Correction Factor".
  Example: 2004, 883 Sportster, 32 tooth pulley from factory 28 tooth pulley.
  Subtract original pulley from new pulley (tooth change) 32-28 = 4
  Divide Tooth Change by Original Pulley 4/28 = .1428
  Round to 3 digits, whole number, (Correction Factor) .1428 = 143, positive
- **GPS Road Distance:** This is the best method, it corrects for factory discrepancy.
  Example: GPS Distance 57 miles, Odometer Distance 50 miles
  Subtract mileage's, odometer – GPS, (Change) 57-50 = 7
  Divide Mileage Change by odometer, (Correction) 7 / 50 = .140

INSTALLATION

Sportster, 1995-2004, and Harley VSS connectors are under the seat or close to the battery box. Starting in 2005, the Sportster Speed Sensor (VSS) has the female part of the connector molded into its body. The male connector attached to "The Corrector" plugs into your Speed Sensor.

- **Connection**
  Locate: The speed sensor, it is at the top of the transmission between the end of the starter and front pulley; see above picture. Follow the wire cable to the connectors. The 2005-up Sportster is easiest done with a long screwdriver inserted below the belt, behind the pulley cover. The connector has a "snap" arm which locks the connector to the sensor. You must slightly "pry" the arm away from the sensor to remove the connector and pull up on the connector with your other hand. Yes, it is awkward! Insert the three single wires into the end of your existing Sensor connector.

  Install: The connection to the speed sensor. Plug the matching connectors of The Corrector into the wire harness.

  For 2005 – up Sportster, view the connector from the side with the "arm". Connector wires pointed down and away from you. The wire colors are: RED = Right; BLU = Center; BLK = Left. Use the new connector as a guide, the BLU goes in the middle.

INSTALLATION (con'd)

- **Push**: The Corrector connector into the Speed Sensor. You need to pay attention here because the connector does not center itself perfectly. Watch how the connector mates with the Speed Sensor; center it and then push it into the sensor. It should mate with some "drag", but not "really hard". The connector must line up with the pins in the Sensor or it will not push in completely. The seal must fit completely down into the Sensor.
- **Confirm Connection to Speed Sensor**
  Turn key on, do not start. The LED's will quickly flash GREEN, one time. If they don't flash then The Corrector is not plugged into the sensor completely or the wires are not correct. Fix before continuing. **The RUN/Stop handlebar switch must be "ON".**
- **Hold the button down**: For eight flashes. Click on RED, LED should stay "on" for about 5 seconds, and the speedometer should show a speed, doesn't matter what. If there is no reading turn "off" the key switch. Repeat this procedure Click on GREEN or when both LEDs are lit. One of these should generate a reading on the speedometer. If no reading is generated check The Corrector wiring. See "Blink Descriptions" below.
- **Turn the key "off":** This resets the speedometer. You are ready to enter the "Correction Factor", see Setup.

BLINK DESCRIPTIONS

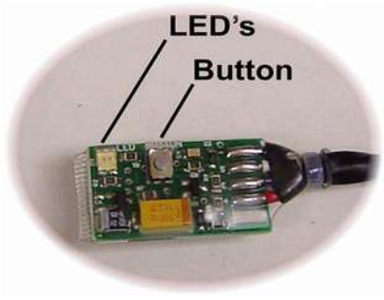
Turn key switch "ON", do not start. The LED's will cycle GREEN, RED, one time. Press the button down for the number of blinks you need (below) and then let go.

- **"2", Verification:** "Correction Factor": LED blinks the three numbers entered (unless the 1st number is "0").
- **"5", Setup Entry:** "Correction Percentage": See "Setup"
- **"8", Test Frequencies**: Speedometer input. Turn key "off" to reset speedometer. Each color will generate a different mph on the speedometer. The mph generated is not important. If no mph is generated the unit may not be plugged in correctly, or is faulty.

SETUP

A positive number makes the speedometer read faster (a front pulley with more teeth than the one you took off). A negative number makes the speedometer read slower (a pulley with fewer teeth than the one you took off). Turn the key switch "ON", do not start. To enter the "Correction Factor", hold the button down for five (5) flashes, and release. You will see quick RED, GREEN continuous flashes. This is the "Setup Pattern", the unit is ready for input.

- **Press the button down:** Release at RED for a negative number (fewer teeth), GREEN for a positive number (more teeth). The Setup Pattern will begin again after each entry, until all three numbers are entered. You must make three entries, including "0". If you have a "Correction Factor" less than "XX", the first entry will be "0". One blink is "1", two blinks is "2", etc., ten blinks is "0".
- **After you enter the last digit**: you will see one ORANGE blink, both Red & Green lighted. Setup is finished.



SETUP CHECK

- **Press the button down for two (2) flashes**, and release. The LED will flash the digits you just entered. If your "Correction Percentage" started with "0" there will only be two sets of flashes, the 10 flashes you put in for a first "0" will not be repeated. A second and third digit if "0" will be repeated. If the number is incorrect start over at "Setup". After the module flashes your number correctly, you are finished. Mount the module.
- **Mounting:** At least 6 inches away from spark plug wires, coils, engine and exhaust Heat. Hold the module to the wiring harness with the wire ties provided.

This ***Quick Start Guide*** gives you the Correction Factors required to set, and how to check The Corrector for a pulley change; front, rear or both. If you have made additional or different changes refer to the instructions, "***CORRECTION FACTOR METHODS***".

CORRECTION FACTORS, *Pulley only change*

Front Pulley	Setting, 883 1991-2003 (27)	Setting, 883 2004-2010 (28)	Setting, 883 2011-2016 (29)	Setting, 1200 1991-2016 (29)
28	037	Standard	-034	-034
29	074	036	Standard	Standard
30	111	071	034	034
31	N/A	107	069	069
32	185	143	103	103

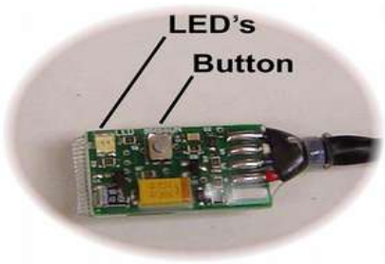
Rear Pulley	Setting, 883 1991-2003 (61)	Setting, 883 &1200 2004-2016 (68)
70	-148	-029
68	-118	Standard
66	-082	029
64	-049	059
61	Standard	103
55	098	191

Front & Rear Pulley	Setting, 883 2004-2010	Setting, 883 2011-2016	Setting, 1200 2004-2016
28/68	Standard	-034	-034
29/68	036	Standard	Standard
29/64	095	059	059
30/64	130	093	093
31/64	166	128	128
32/64	202	162	162
29/66	065	029	029
30/66	101	064	064
31/66	137	098	098
32/66	172	133	133

CORRECTION SETTING PROCEDURE

First "clear" the memory. Engine not running; hold down the "Button" and turn the key "ON". The LED's will show green, red, both red/green, let the Button up when both red/green show together. You should get one more red/green together flash to confirm a cleared memory.

Following sets The Corrector for a 32 tooth pulley from 28 tooth, 2004-Up 883; Setting = 143.



1. Turn key switch on, get one green flash.
2. Hold button down for "5" flashes, let go; continuous red/green flashes
3. Hold button down, get slow red/green flashes, let go on green flash; you should get fast red/green flashes
4. Hold button for "1" flash, let go; get fast red/green
5. Hold button for "4" flashes, let go; get fast red/green
6. Hold button for "3" flashes, let go; you should get one long flash

CORRECTION SETTING CHECK

1. Hold down the button for "2" flashes, let go.
2. You should get "1", "4", "3" flashes with a "wait" time between each flash group.
3. If you get a different number of flashes, re-enter the 1, 4, 3 again, as above.

Other items you can use from ***883Sportster.com***

Heel/Toe Shifter

Oil Temperature Gauge

Halo Headlight

Triple Light

LED Rear Lamp Replacement Kit

Interstate Handlebars

Pulley Guard & Cover

Pulley Holder Kit