

4/26/2008 :

SPEEDWAY



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MicroTach+™ Tachometer Installation Instructions for 2004 and Later Harley Davidson Sportsters (except Custom)

More instructions available online at www.speedwayinstruments.com

Introduction:

Installation of the Speedway Instruments microTach+™ Tachometer requires some basic mechanical skills, including removing decorative covers, cutting protective tubing around wires, and using suitcase splice connectors to splice existing wiring harness. These actions may void your warranty, and if done incorrectly may cause damage to your motorcycle. Only you know your capabilities, if you do not feel capable of making modification please have a qualified motorcycle technician install it. Speedway Instruments, LLC is not responsible for damage to your motorcycle due to improper installation.

These instructions utilize a 2007 Harley Davidson XL1200N motorcycle as basis for the all descriptions and pictures. Variations in location, color and procedure may be required for different year and make. Please refer to the Service manual to confirm the proper color and location of wires. Please make sure you have the proper service manual and tools before starting the installation.

WARNING: Damage may occur to the microTach+™ tachometer or your motorcycle if microTach+™ tachometer is connected directly to coil signals!!

1. Turn ignition off and disconnect Battery.
2. Determine a mounting position. Each motorcycle is unique and the microTach+™ tachometer is small enough to be placed in many different locations to provide an attractive appearance and vital engine status. Possible locations are:
 - a. Front Brake Reservoir (described here)
 - b. Top handle bar clamp



Figure 2: Brake resevior mount



Figure 1: Handlebar clamp mount

3. Mount microTach+™ tachometer to location by first cleaning/drying mounting location of all dirt and debris. Remove red backing and pressing firmly into place. Hold for 10 seconds.

4/26/2008 :

4. Remove Headlight by removing 2 bolts shown in Figure 3 and leave hanging. Make sure to protect it using towel or tape so that it does not get scratched. See Figure 4.



Figure 4: Headlight Removed



Figure 3: Headlight bolts



Figure 5: Wire Bundles

5. Look for 2 bundles coming out of the instruments. They combine into one larger bundle as shown. Look for the bundle which goes into the speedometer.
6. Locate a position in the wire bundles where it is hidden behind the headlight. Cut into the larger outer tubing, and into the bundle for the speedometer. Be careful not to cut into any wires inside the tubing. (sharp razor blade used gently is best). See Figure 6.

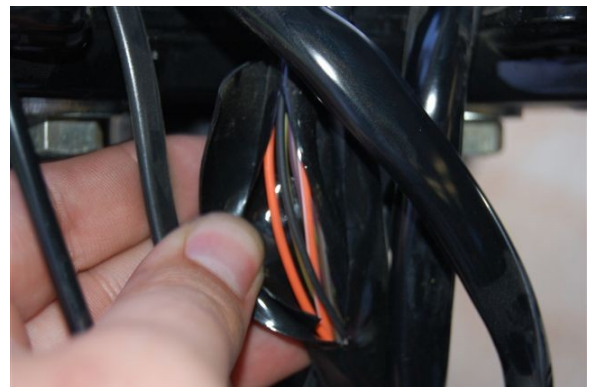


Figure 6: cut away tubing to expose wires

4/26/2008 :

7. Slip black tubing over 3 wires of the microTach+™ tachometer, and route through the clips in handlebars. Mark tubing for proper length and cut to length necessary. It may be best to remove from wires before cutting.
8. Now cut 3 wires from microTach+™ tachometer to length. Cut each wire a different length so that the suitcase splice connectors are staggered as in Figure 8. Attach the end of each of the 3 wires from microTach+™ tachometer to a suitcase splice connector. Make sure you use the proper side of the connector. One side is for pass-through the other is not.
9. Locate 3 colored wires inside the wire bundle which was exposed in Step 5.



Figure 7: Cut tubing to size

Motorcycle Bundle	MicroTach+™ tachometer	Descriptions
LightGreen/Violet	White	Digital databus signal
Black	Black	Ground(2004-2007)
Black/Green	Black	Ground(2008 RoadKing)
Orange/White	Red	Instrument Power +12V

10. Slip each of the suitcase connectors over the proper wire and close with pliers. Again make sure the connectors are offset or staggered so that they form a smaller bundle.
11. Connect the battery and test motorcycle and microTach+™ tachometer for proper operation
12. Tape bundle with exterior black electrical tape or self adhesive silicon tape.



Figure 8: Stagger connectors to make smaller bundle size



Figure 9: Tape bundle to seal out moisture

13. Remount headlight, using threadlock and torque per service manual.

4/26/2008 :

14. Enjoy your next ride and all that follow! Ride Safe!