

V-Twin Mfg.
60MM Mini Speedometer, 2:1 Ratio w/4 LED
Fits 1973-94 XL, FXD Includes Cable
VT Part No. 39-0550

This is a custom application and rider safety depends on proper installation. This product should only be installed by a knowledgeable and trained motorcycle technician. V-Twin Mfg. accepts no responsibility for improper installation.

Caution: We recommend that all electrical connections be made with solder and covered with heat shrink tubing for safety and reliability.

Note: These instructions are not for one specific model. Your motorcycle may differ slightly from what is described in the instructions, but installation should be similar. You will need a wiring schematic for your motorcycle to wire these lights correctly.

Installation Instructions:

1. Disconnect the battery.
2. Refer to the factory service manual for your specific model and remove the OEM speedometer and indicator lights. The indicator lights usually unplug either in the rear of the headlight or under the gas tank area.
3. Mount the new speedometer in the desired location.
4. Locate the OEM wire for the high beam indicator light. Connect it with the blue wire from the wire harness on the speedometer. Connect the blue/black wire from the speedometer to ground.
5. Locate the OEM wire for the gauge illumination (back) lighting. Connect this wire to the orange wire on the speedometer. Connect the black wire on the speedometer to ground.
6. Locate the OEM wires for the turn signals. Usually they are brown and violet wires.

Note: You will notice only one bulb for the turn signals in the gauge and two wires from the bike to the harness. If you connect both of these wires directly to the yellow wire on the speedometer, this will allow feedback and cause all the signals to flash at once. To prevent this, you will need to add a diode between each OEM turn signal wire and the yellow wire coming from the speedometer. We recommend that you utilize a tachometer adapter, VT No. 32-7799, available separately. This tach adapter includes the diodes necessary to allow the turn signal indicator light to operate correctly. Follow the instructions for the tach adapter, substituting the wires from the original wire harness found in step 6 for the two ignition terminals shown in the wire schematic. Hook the white wire on the tach adapter to the yellow wire for the turn signal indicator on the speedometer. If you use the VT No. 32-7799 adapter, skip steps 7-9 and go directly to step 10.

7. Take one of the diodes, making sure to observe the correct polarity, and attach it to the brown turn signal wire on the bike.
8. Take the remaining diode, again making sure to observe the correct polarity, and attach it to the violet turn signal wire on the bike.
9. Take the remaining wire from both diodes and attach it to the yellow wire on the speedometer.
10. Connect the yellow/black wire on the speedometer to ground.
11. Using the factory service manual, locate the wire that connected the oil pressure indicator light to the sending unit. Connect this wire to the red/black wire on the speedometer.
12. Connect the red wire on the speedometer to the wire originally feeding power to the OEM oil pressure indicator light.
13. Using the factory service manual, locate and determine the type of sending unit used on the neutral light.

Note: There are two different "styles" of sending units usually used for the neutral indicator light. One style is a "grounding" sending unit that has just one wire running to it and grounds the wire to illuminate the indicator bulb. The other popular style uses two wires and closes a circuit between the two wires to illuminate the indicator bulb. Determining which style is used on your bike will determine how the indicator lights are wired into the bike's wiring harness. Harley-Davidson has used both styles in the past.

Note: If your bike has the two-wire neutral switch on the transmission, please skip to step 17. If you have a single-wire neutral switch, continue with step 14.

14. Connect the green wire from the speedometer with a 12V switched power source. (You can use the same source as used in step 12.)
15. Locate the wire connected to the neutral switch and connect it to the green/black wire on the speedometer.
16. Go to Step 19.
17. Connect the green wire from the speedometer with the wire connected to the neutral switch.
18. Connect the green/black wire on the speedometer to ground.
19. Check all items to make sure they are correctly tightened. Route all wires away from moving and hot items to prevent short circuits.
20. Reconnect the battery.
21. Turn on the ignition; check operation of neutral oil, high beam, turn signals and the back light.

