



- Thank you for purchasing the **HD-03** series kit. Before installing, or operating this unit, please read the instructions thoroughly and retain them for future reference.

Attention!

1. This meter only functions with DC 12V.
2. Any damages caused by faulty installation shall be imputed to the users.
3. To avoid a short circuit from occurring, do not pull or modify the wires during installation.
4. Disassembling this unit will void your warranty. Maintenance should be executed by our professionals.

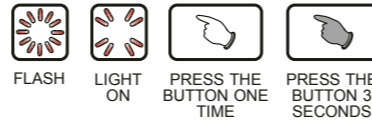
OMARK MEANING:

NOTE You could get the installation details from the information behind the mark.

Some processes must be followed to avoid the affection caused by wrong installation.

WARNING! Some processes must be followed to avoid damages to yourself or the public.

CAUTION! Some processes must be followed to avoid the damage to the vehicle.



1 Accessories

1 Speedo & Tacho Meter X1



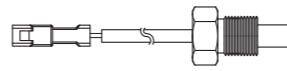
2 Fuel Level Meter X1



3 Oil Temp. Meter X1



4 PT1/2-20UFN sensor X1

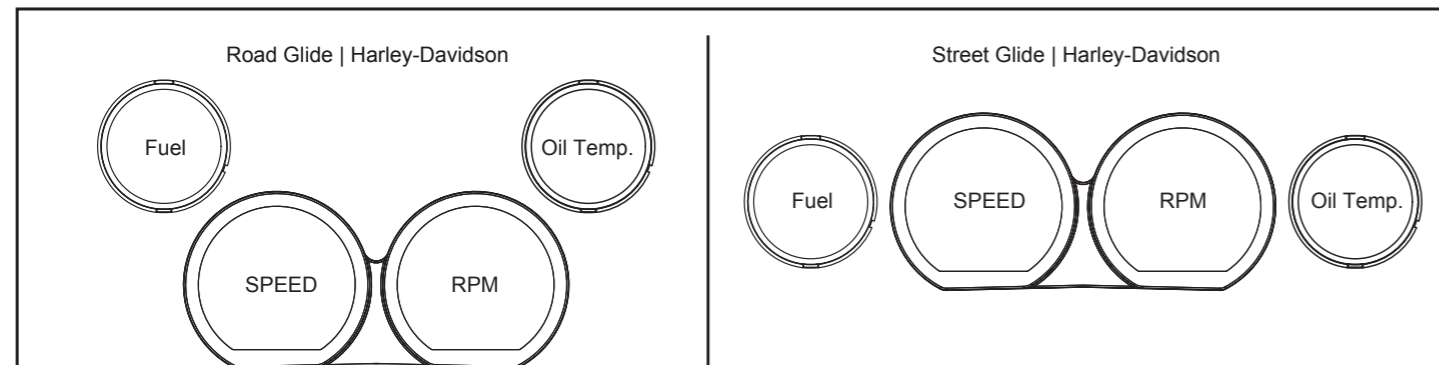


5 Sensor wire set X1



NOTE Contact your local distributor, if the items received in the box are not the same as the items listed above.

2-1 Gauge location

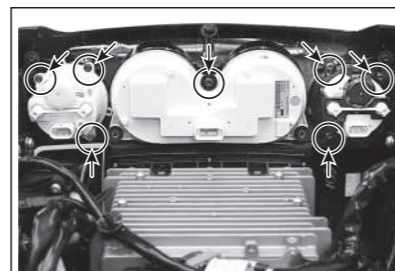


NOTE Fit Harley-Davidson® FLHX, FLTC and FLTR from 2014 to 2017.

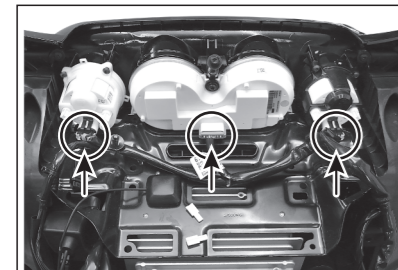
2-2 Disassembling Instructions



1. Disconnect the ground (-) (negative pole of the battery) from the vehicle's battery.
2. Remove the mounting screw and remove the fairing.



4. Remove the remaining 7 screws.



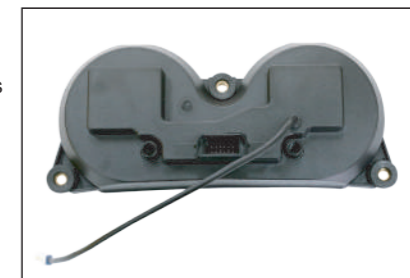
3. Disconnect the 3 gauges.



5. Ensure the Speed and Tach bezels remain in the fairing.



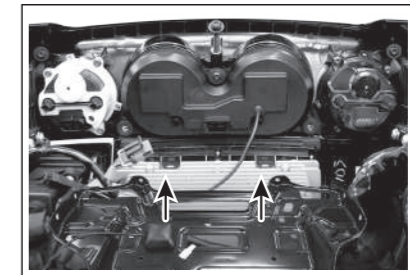
6. The Fuel and Volts bezels and mounting cups will be reused. There are 3 tabs on the bezels that need to be carefully pushed back through the mounting cup to separate the bezel from the mounting cup and to release the factory gauge.



9. Put the bushings and nuts to KOSO Speed / Tachometer.



7. The new OIL TEMP gauge will use the existing white Volts mounting cup and the new Fuel Level gauge will use the existing black Fuel mounting cup. Place the new VOLTS and OIL TEMP gauge in the appropriate housings and secure the bezel in place by lining up the tabs.

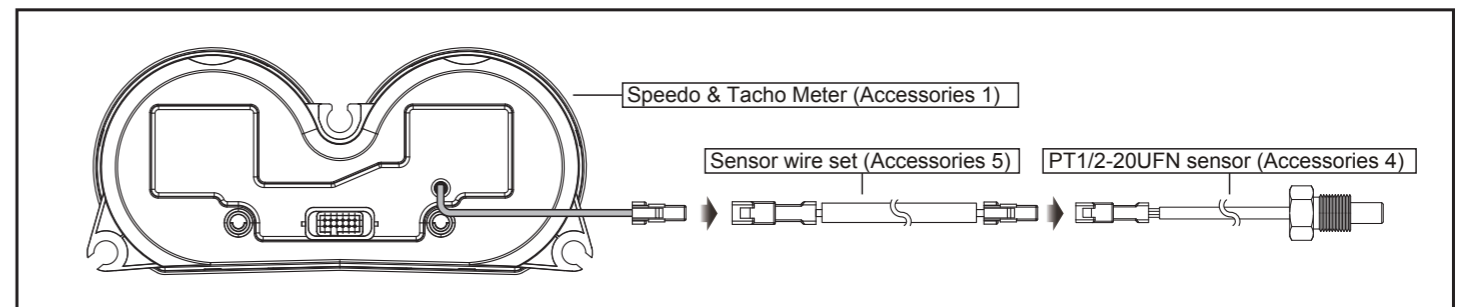


10. Reassemble the amplifier tray to the radio and speaker enclosures using the factory hardware; also give the top center Speed / Tach screw a final torquing with the gauge aligned to the fairing and amplifier tray.



8. Remove the bushings and nuts for original Speed / Tachometer.

2-3 Wiring Installation Instructions



3-1 Overview

Speedometer
• Display range : 0 ~ 299 km/h (0 ~ 199 MPH) • Display unit : 1 km/h (MPH)

Tachometer
• Display range : 0 ~ 9,990 RPM • Display unit : 10 RPM

Time
• Display range : 12 / 24 hour format
Time is not displayed when using radio.

Gear meter
• Display range : N, R, P, 1 ~ 6

Odometer
• Display range : 0 ~ 999,999 km (mile) return to zero upon exceed.
• Display unit : 1 km (mile)
Distance meter A,B
• Display range : 0 ~ 9,999.9 km (mile) return to zero upon exceed.
• Display unit : 0.1 km (mile)

Engine temperature
• Display range : -40 ~ 300 °C (-40 ~ 572 °F)
Voltmeter
• Display range : 8 ~ 18 V

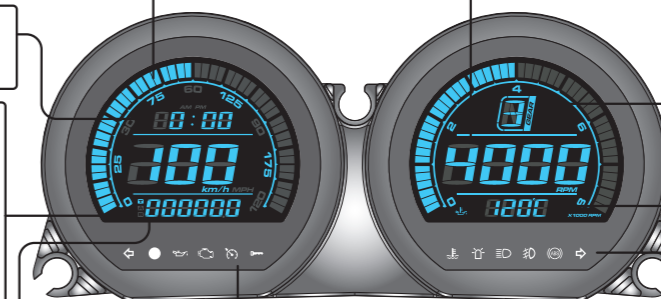
Mileage maintenance user settings (closable)
• Display range : user adjustable (500 ~ 16,000km / 300 ~ 10,000 mile) ~ -999 mile, automatically decreases according to the increase of total mileage.
• Display unit : 1 km (mile)

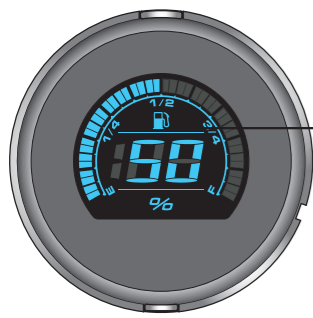
RANGE / Remaining Mileage Warning
• Display range : LCD shows "LO RNG" and flashing as warning when RNAGE / Remaining Mileage lower than 16 km (10 miles).

Average fuel consumption
• Setting range : OFF / L/100km / km/L / MPG (US spec.) / MPG (UK spec.)

Indicators
• Turn signal (Green)
• Photometric Sensing
• Oil (Red)
• Engine warning (Yellow)
• Constant speed (Orange / Green)
• Security (Red)

Indicators
• Water temperature (Blue)
• Warning Light (Orange/Green)
• High beam (Blue)
• Fog Light (Green)
• ABS (Yellow)
• Turn signal (Green)





Fuel Meter
 ● Display range : 0 ~ 100 %
 ● Display unit : 1 %



Oil Temp. Meter
 ● Display range : 0 ~ 400 °F (32 ~ 248 °C)
 ● Display range : 1 °F (1 °C)
 ● Oil Temp. Warning
 ● Setting range : 140 ~ 400 °F (60 ~ 250 °C)
 ● Setting unit : 1 °F (1 °C)

3-2 Settings Instructions

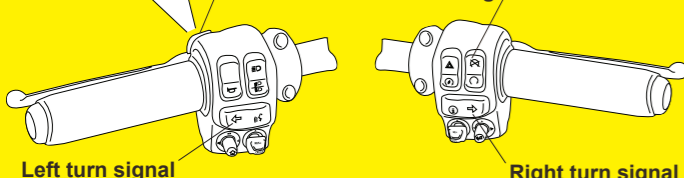
| | | | |
|----------------------------------|---|-------------------------------------|---|
| ● Speedometer | Display range : 0 ~ 299 km/h (0 ~ 199 MPH) switchable Display unit : 1 km/h (MPH) | ○ Fuel tank volume | Setting range : OFF / 1.0 ~ 9.9 US gallons |
| ○ Display interval | <0.5 second | ○ Average fuel consumption | Setting range : OFF / L/100km / km/L / MPG (US spec.) / MPG (UK spec.) |
| ○ Overspeed warning setting | Setting range : 30 ~ 299 km/h (19 ~ 199 MPH) when above(including) setting value, warning light will lit. Setting unit : 1 km/h (MPH) | ● RANGE / Remaining Mileage | Display range : 0 ~ 9,999 km (6,249 miles) Display unit : 1 km (mile) |
| ○ Max. speed record | Display range : 0 ~ 299 (mile) | ● RANGE / Remaining Mileage Warning | Display range : LCD shows "LO RNG" and flashing as warning when RANGE / Remaining Mileage lower than 16 km (10 miles). |
| ○ Internal and external odometer | Display range : 0 ~ 999,999 C Display unit : 1 km (mile) | ● Clock | Setting range : 12 / 24 hour format |
| ○ Tire circumference | Setting range : 50 ~ 210% Setting unit : 1% | ● Oil Temp. | Display range : 0 ~ 400 °F (32 ~ 248 °C) Display unit : 1 °F (°C) |
| ○ Trip meter A、B | Display range : 0 ~ 9,999.9 km (mile) Display unit : 0.1 km (mile) | ○ Max. Oil Temp. record | Display range : 0 ~ 400 °F (32 ~ 248 °C) |
| ○ Mileage maintenance | Setting range : off / 500 ~ 16,000 km (300 ~ 10,000 mile) ~ -999 km (mile), decrease according to the increase in total mileage. Setting unit : 1 km (mile) | ● Voltmeter | Display range : 8 ~ 18 V |
| ● Gear meter | Display range : off / N / P / R / 1~6 | ● Backlight brightness | Setting range : 1 / 5 (darkest) ~ 5 / 5 (brightest) |
| ● Tachometer | Display range : 0 ~ 9,990 RPM Display unit : 10 RPM | ○ Backlight color | Setting range : red / blue |
| ○ RPM shift light | Display range : 2,000 ~ 8,000 RPM Warning lights on when exceed setting value (including). Setting unit : 100 RPM | ● Operating voltage | DC 12 V |
| ○ Max. rotating speed | Display range : 0 ~ 8,000 RPM Display unit : 100 RPM | ● Temperature range | -10 ~ 60 °C |
| ● Engine temperature | Setting range : -40 ~ 300 °C (-40 ~ 572 °F) | ● Specifications | JIS D 0203 (S2) |
| ● Fuel meter | Setting range : HD Std / Cust | ● Meter Weight - Speedo & Tacho | 286 grams |
| ○ Fuel warning setting | Setting range : 1. HD Standard - LCD flashing as warning when Fuel level resistance greater than 211Ω, and will turn off when resistance smaller than 187Ω. 2. Customize - LCD flashing as warning when Fuel level lower than 20%, and will turn off when fuel level higher than 30%. | ● Meter Weight - Oil Temp. | 81 grams |
| | | ● Meter Weight -Fuel Level | 81 grams |
| | | ● Indicators | Turn signal (Green) ↕ Photometric Sensing ● Oil (Red) ● Engine warning (Yellow) ● Constant speed (Orange / Green) ● Security (Red) ● Water temperature (Blue) ● Warning Light (Orange/Green) ● High beam (Blue) ● Fog Light (Green) ● ABS (Yellow) ● Turn signal (Green) ↕ |

NOTE Design and specification may change without further notice.

3-3 Entering the settings

* To enter the gauge settings mode, you must follow the steps below:

- 1: The key must be switched to **ON/Accessories**
- 2: **Engine OFF/run** switch must be **OFF**.
- 3: Meter must be displaying **ODOMETER**.
- 4: Hold both **turn signal** switches for 3 seconds.
- 5: Use **trigger** switch to navigate through settings.



- In the total mileage screen, press the **button once** to switch to Trip A screen.
- Hold the **button for 3 seconds**, to switch engine temp. or voltage.

NOTE Engine temp. and voltage will display on tachometer.



- Trip A screen, press the **button once** to switch to Trip B screen.
- Hold the **button for 3 seconds** to clear the Trip A recordings.



- Trip B screen, press the **button once** to switch to the mileage maintenance screen.
- Hold the **button for 3 seconds** to clear the Trip B recordings.



- In the mileage maintenance screen, press the **button once** to switch to the remaining mileage screen.

- Mileage maintenance will count down from setting value, when it reaches 0, the screen will blink to indicate mileage reached.



- When reminding feature is activated, it will automatic return to the remaining mileage screen if the mileage maintenance value is reached.
- When reminding feature is activated, it will automatically switch to mileage maintenance screen during startup if remaining mileage value is reached.



- Hold the **button for 3 seconds** to switch to inform function switch.



NOTE It will not display if it's not supported in engine computer.

- Hold the **button for 10 seconds** to clear the mileage maintenance recordings.



- In the 0 second, start holding the button.



- In the 3rd second, the inform feature will blink once.



- In the 5th second, inform feature will switch back, mileage display will begin blinking.

- During the 6~9th seconds, if the button is released, it will cancel the process.



- On the 10th second, the mileage maintenance record is cleared.

NOTE Display can be switch off. Please reference video setting.



- In the remaining mileage screen, press the **button once** to switch to the average fuel consumption screen.

- Remaining mileage is lower than 16 km (10mile), will display "LO RNG" to inform users.



- When reminding feature is activated, it will automatic return to the remaining mileage screen, if remaining mileage is too low.

- When reminding feature is activated, it will automatic switch to the remaining mileage screen during startup, if remaining mileage is too low.



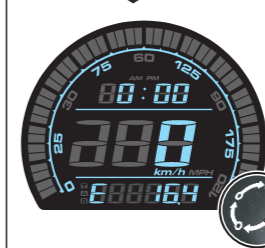
- Hold the **button for 3 seconds** to switch to inform feature switch



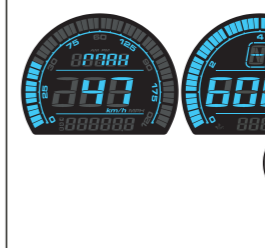
NOTE It will not display if it's not supported in engine computer.

- The following situation will result displaying "r----" or no display at all.
 - Abnormal fuel sensor (short / open circuit)

NOTE Display can be switch off. Please reference video setting.



- In the average fuel consumption screen, press the **button once** to switch to the MAX. record screen.



- In the MAX. record screen, press the **button once** to switch to the total mileage screen.

- Hold the **button for 3 seconds** to clear the MAX. record.



- Total mileage screen.

4 Information for setting screen and how to do setting

KOSO Harley Touring 4pcs Kit (Speedo&Tacho / Oil Temp. / Fuel Level)
 Information for setting screen and how to do setting -



Please scan QR code for information.