



HD-02 series instructions with oil temperature meter





Thank you for purchasing Koso's Harley Davidson Speedometer. Before operating this unit, please read the instructions thoroughly and retain them for future reference.

⚠ Notice

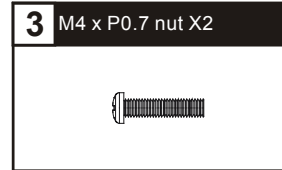
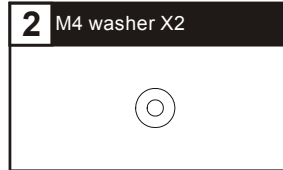
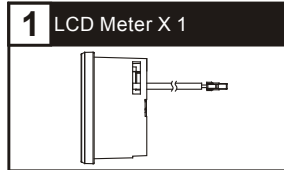
1. This product only functions with DC12V.
2. Any damages caused by faulty installation shall be imputed to the users.
3. To avoid a short circuit from occurring, do not pull on or modify the wires during installation.
5. Disassembling the unit will void any warranty. Maintenance and repairs should be executed by our professionals only.

SYMBOL DESCRIPTION:

- ⚠ Some procedures must be followed in order to avoid faulty installation.
- ⚠ WARNING!** Some procedures must be followed to avoid damages from occurring to yourself and to others.
- ⚠ CAUTION!** Some procedures must be followed to avoid damages from occurring to the vehicle.

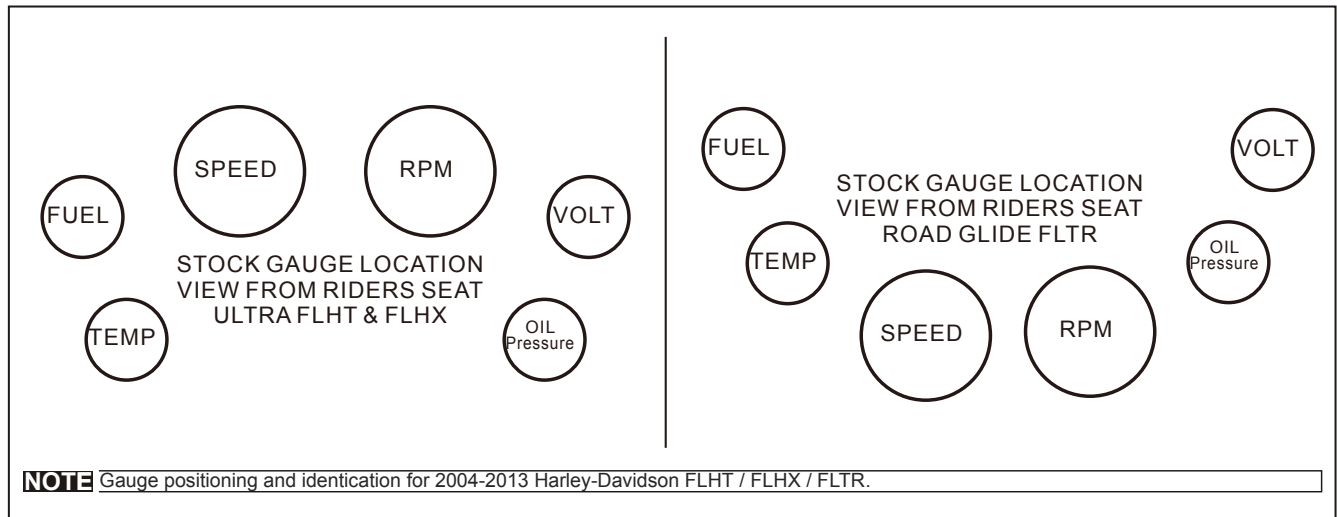


1 Accessories



NOTE Please contact your local distributor if the items received are not the same as the items listed above.

2-1 Gauge location



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.

5. Remove the mounting hardware.



3. Disconnect the headlight connector.



6. Remove the meter from the inner fairing



4. Disconnect the wiring from the Speedometer, tachometer, ambient temp. meter, volt meter, fuel meter, and oil pressure meter.

7. Replace the meter with the new KOSO version.

NOTE The installation will be the same procedure backwards

4-4 Backlight setting

Hold the button for 3 seconds to enter the Backlight settings screen.



EX. To change the setting to rEd (Red). Press the button to choose the setting number.

NOTE Default:bLUE (Blue)

△ Now the default is flashing

NOTE Setting range:bLUE (Blue) / rED (Red).



EX. Now the setting is changed from bLUE (Blue) to rEd (Red). Hold the button for 3 seconds to enter the Backlight settings.



EX. You want to set the backlight at 3-5 (60%). Press the button to choose the setting number.

NOTE Default:5-5

△ Now the default is flashing

NOTE Setting range:1-5(Darkest)~5-5 (Brightest),5 different levels available. Setting unit:20% per level. The backlight brightness will change immediately after you set the value.



EX:The backlight setting is changed from 5-5 (100%) to 3-5 (60%). Hold the button for 3 seconds to go back to the Backlight clock settings screen.



Backlight clock settings screen. Press the button once to enter the circumference percentage settings screen.



4-5 Circumference percentage settings

☒ Hold the button for 3 seconds to enter the circumference percentage settings screen.



☒ EX. To change the setting to 150%.
☒ Press the button to move to the digit you want to set.

NOTE Default:50.

△ Now the default is flashing

NOTE Setting range: 50~210 %



☒ Press the button to choose the setting number.



☒ EX. Now the setting is changed from 100% to 150%.
☒ Hold the button for 3 seconds to go back to the circumference percentage settings screen.



☒ In the circumference percentage settings screen, Press the button once to enter in the Odometer settings screen.

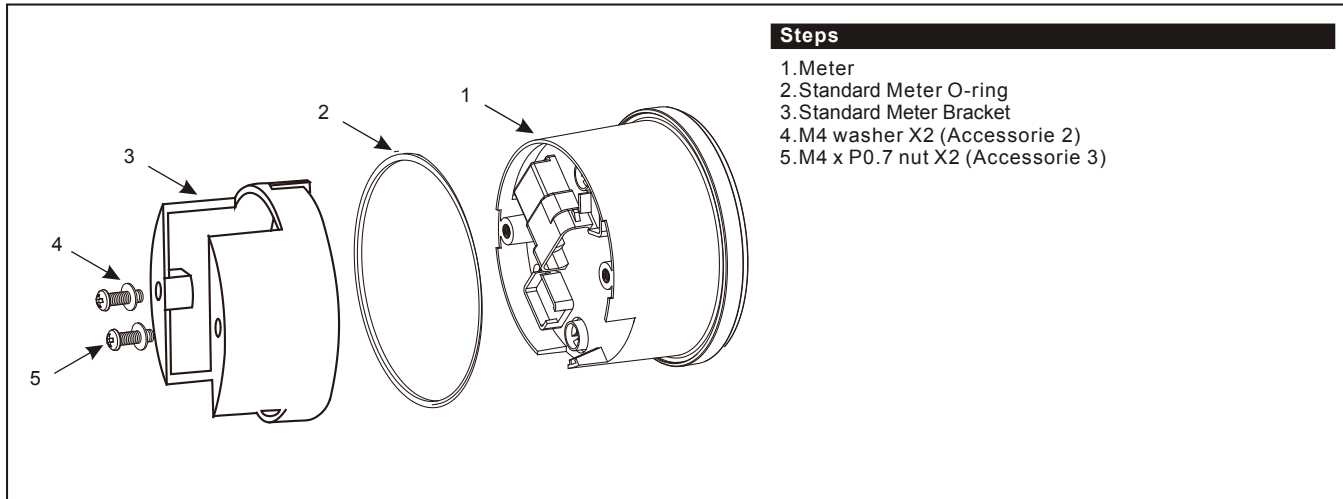


4-6 Odometer display

☒ Odometer display screen, Press the button once to enter in the external odometer setting screen.



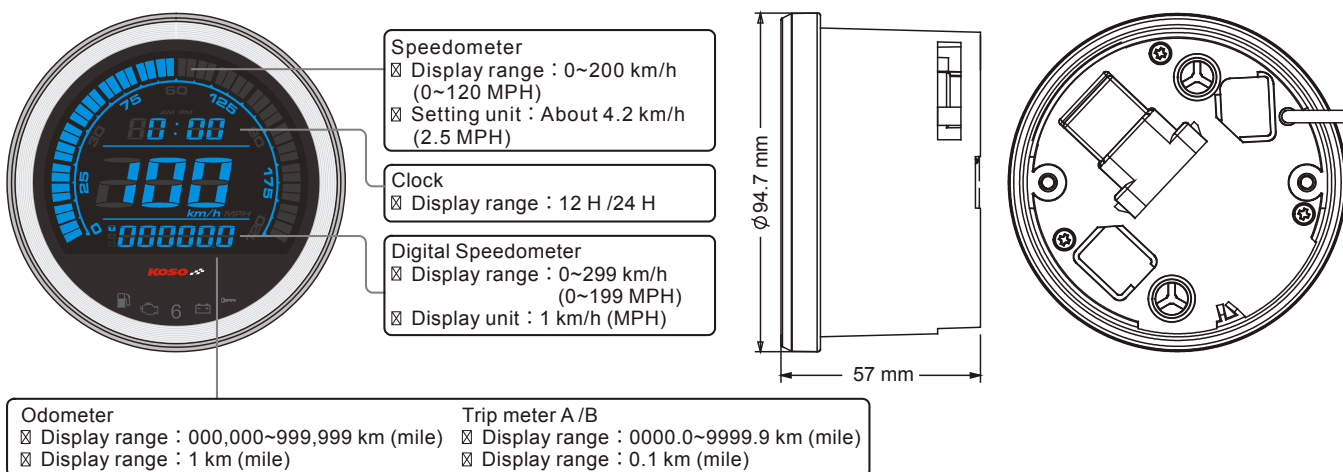
2-3 Installation instructions



Steps

1. Meter
2. Standard Meter O-ring
3. Standard Meter Bracket
4. M4 washer X2 (Accessorie 2)
5. M4 x P0.7 nut X2 (Accessorie 3)

3 Overview



Speedometer
 ☒ Display range : 0~200 km/h (0~120 MPH)
 ☒ Setting unit : About 4.2 km/h (2.5 MPH)

Clock
 ☒ Display range : 12 H /24 H

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

Odometer
 ☒ Display range : 000,000~999,999 km (mile)
 ☒ Display range : 1 km (mile)

Trip meter A /B
 ☒ Display range : 0000.0~9999.9 km (mile)
 ☒ Display range : 0.1 km (mile)

3-1 Settings Instructions

| | | | |
|-----------------------|---|-------------------------------|--|
| ☒ Digital Speedometer | Display range : 0~299 km/h (0~199 MPH) Display unit : 1 km/h (MPH) | ☒ Effective voltage | DC 12 V |
| ☒ Speedometer | Display range : 0~200 km/h (0~120 MPH) Setting unit : About 4.2 km/h (2.5 MPH) | ☒ Effective temperature range | -10~60 °C |
| ☒ Odometer | Display range : 000,000~999,999 km (mile) Display range : 1 km (mile) | ☒ Meter standard | JIS D 0203 |
| ☒ Trip meter A /B | Display range : 0000.0~9999.9 km (mile) Display range : 0.1 km (mile) | ☒ Meter size | D94.7 X 55.8 mm |
| ☒ Clock | Display range : 12 H /24 H Accuracy + / -4 seconds / Day | ☒ Meter weight | |
| ☒ Fuel | Display range : Fu-04 / Fu-08 Hd-04 / Hd-08 | ☒ Indicator light color | Fuel light (Yellow) Engine light (Yellow) Gear light (Green) Volt light (Red) Anti-Theft light (Red) |
| ☒ Backlight color | Setting range:Blue / Red | | |



NOTE Design and specifications are subject to change without notice!

NOTE Please be advised this meter was programmed according original factory parameters. If the vehicle has been modified or customized and the parameters have been change, then the meter display might not be accurate

NOTE The backlight adjustment (brightness and color) must be done through the Speedometer housing with the communication harness.

4-7 External odometer setting



- ☒ Hold the button for 3 seconds to enter the External odometer settings screen.



- ☒ EX. Set the External odometer to 3000 km.
- ☒ Press the Select button to move to the digit you want to set.

NOTE Default:000,000km(mile)
 ⚠ Now the default is flashing



NOTE Display range:000,000~999,999 km (mile)


- ☒ Press the button to choose the setting number.


- ☒ EX. The External odometer setting has been changed from 0 km to 3,000 km.
- ☒ Hold the button for 3 seconds to go back to the External odometer display setting screen.

- ☒ External odometer display setting screen.
- ☒ Hold the button for 3 seconds to go back to the External odometer display setting screen.

- ☒ The main screen.



5 Troubleshooting

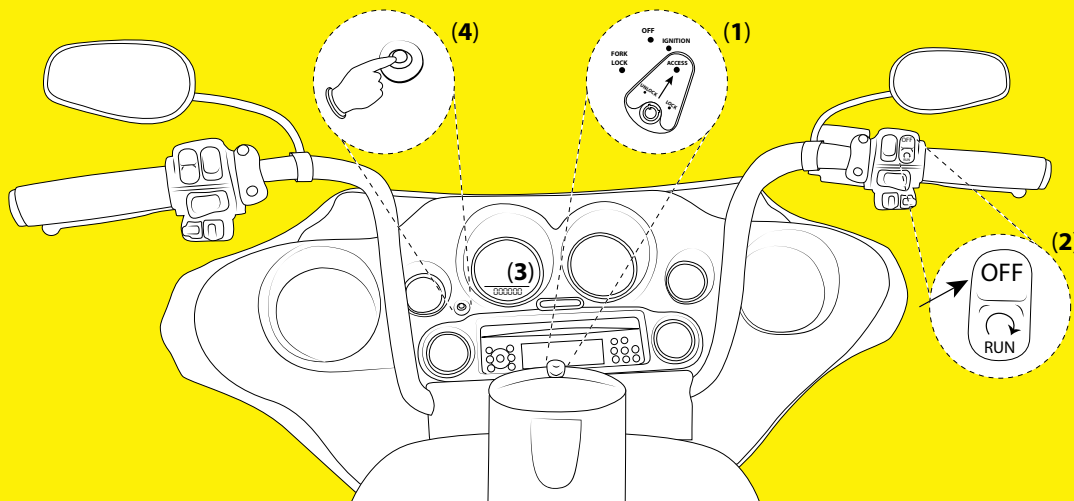
The following situation does not indicate malfunction of the meter. Please check the following points before taking it in for repairs

| Trouble | Check item |
|--|--|
| The meter doesn't work when the power is on. | <ul style="list-style-type: none"> ☒ The power doesn't supply to the meter. ☒ Please make sure the wires are connected. Make sure the wires and fuse are not broken. ☒ Make sure the battery is not broken or the battery is too old to supply enough power DC 12V to make the meter work. |

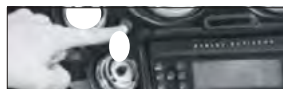
4 Entering the settings

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

- A : The key must be switched to ON/ACCESSORIES (1).
- B : The Engine OFF/Run must be OFF (2).
- C : The speedometer must be displaying ODOMETER (3).
- D : Press and hold the Trip/Reset button down for 3 seconds to enter the settings (4).
- E : Use the Trip/Reset button to navigate through the settings (4).



In the main screen, hold the button for 3 seconds to enter in the settings screen.



4-1 Speed unit settings

Hold the button for 3 seconds to enter in the Speed unit settings screen.



EX. To change the setting from km/h to MPH. Press the Adjust button to change the setting.

- NOTE** Default: km/h
- ⚠** Now the default is flashing
- NOTE** Setting range: km/h or MPH.
- NOTE** The odometer & trip meter will change together with the speed unit.



EX. The Speed unit setting is changed from km/h to MPH. Hold the button for 3 seconds to go back to the Speed unit settings screen.

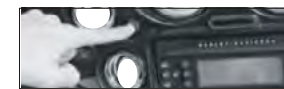


In Speed unit settings screen, Press the button once to enter the Clock settings screen.



4-2 Clock settings

Hold the button for 3 seconds to enter the Clock setting screen.





EX. To change the setting to 24 H
Press the Adjust button to choose the
setting number.

NOTE Default: 12 H.

▲ Now the default is flashing

NOTE Setting range: 12 H / 24 H



EX. The Clock (H) setting is changed
from 12 H to 24 H.
Hold the button for 3 seconds to enter
in the Clock settings screen.



EX. To change the setting to 10:00.
Press the button to choose the setting
number.

NOTE Default: 0 H.

▲ Now the default is flashing

NOTE Setting range: 0~23 H.



EX. Now the setting is changed from
0:00 to 10:00.
Hold the button for 3 seconds to enter
the minute setting.



EX. To change the settings.
Press the button to move to the digit
you want to set.

NOTE Default: 0 minutes.

▲ Now the default is flashing

NOTE Setting range: 00~59 minutes.



Press the button to choose the
setting number.



EX. Now the setting is changed from
10:00 to 10:05.
Hold the button for 3 seconds to go
back to the Clock settings screen.



Clock setting screen, Press the
button once to enter the fuel type
settings screen.



4-3 Fuel type setting

Hold the button for 3 seconds to
enter the Fuel type setting screen.



EX. To change the setting from
Hd-08 to Hd-04.
Press the Adjust button to change
the setting.

NOTE Default: Hd-08

▲ Now the default is flashing

NOTE

Fu-04 (2004~2007 Model+KOSO Fuel Level Gauge)
Fu-08 (2008~2013 Model+KOSO Fuel Level Gauge)
Hd-04 (2004~2007 Model+ Stock Fuel Level Gauge)
Hd-08 (2008~2013 Model+ Stock Fuel Level Gauge)



EX. The Fuel type setting is
changed from Hd-08 to Hd-04.
Hold the button for 3 seconds
to go back to the Fuel type setting
screen.



Fuel type setting screen, Press
the button once to enter the Clock
setting screen.





Thank you for purchasing Koso's Harley Davidson Tachometer. Before operating this unit, please read the instructions thoroughly and retain them for future reference.

⚠ Notice

1. This meter only functions with DC 12V.
2. Any damage 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 installing.
5. Dissassembling this unit will void your warranty. Maintenance should be executed by our professionals.

SYMBOL MEANING:

- ⚠ Some procedures must be followed in order to avoid faulty installation.
- ⚠ WARNING!** Some procedures must be followed to avoid damages from occurring to yourself and others.
- ⚠ CAUTION!** Some procedures must be followed to avoid damages from occurring to the vehicle.



FLASH



LIGHT ON

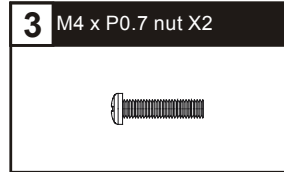
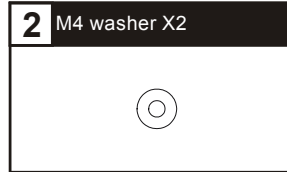
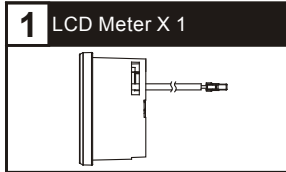


PRESS THE BUTTON ONE TIME



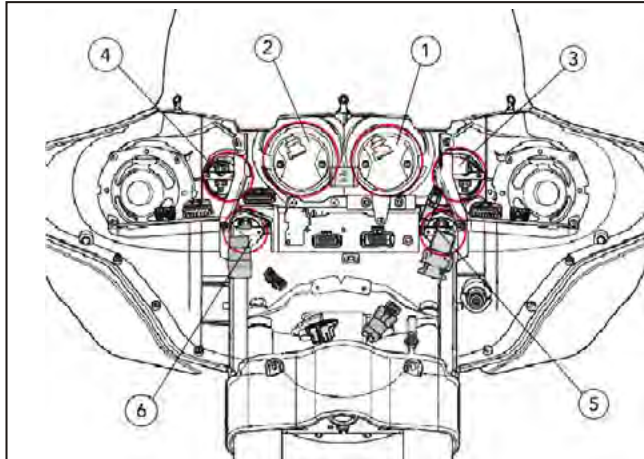
PRESS THE BUTTON 3 SECONDS

1 Accessories



NOTE Please contact your local distributor if the items received are not the same as the items listed above.

2-1 Gauge location



- ① HD-02S 4" Speedometer
- ② HD-02R 4" Tachometer
- ③ HD-02T 2" Ambient Temp. Meter
- ④ HD-02V 2" Voltage Meter
- ⑤ HD-02F 2" Fuel Meter
- ⑥ HD-02P 2" Oil Pressure Meter

NOTE Gauge positioning and identification for 2004-2013 Harley-Davidson FLHT / FLHX / FLTR. For any other models, refer to the service manual.

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.



5. Remove the mounting hardware.



3. Disconnect the headlight connector.



6. Remove the meter from the inner fairing.

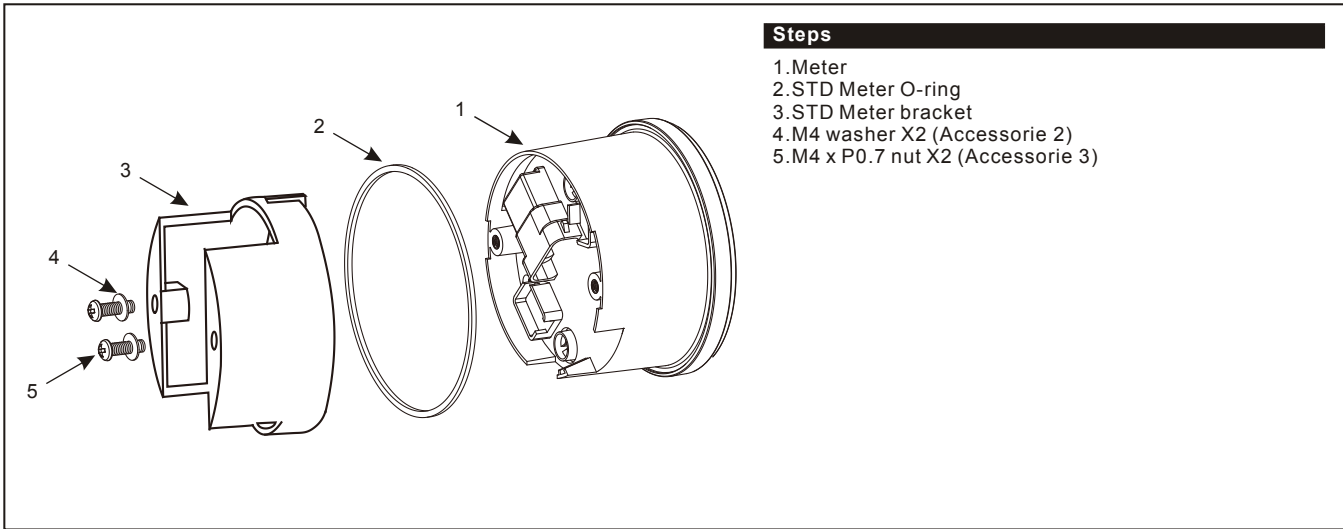


4. Disconnect the wiring from the speedometer, tachometer, ambient temp. meter, volt meter, fuel meter, and oil pressure meter.

7. Replace the meter with the new KOSO version.

NOTE The installation will be the same procedure backwards

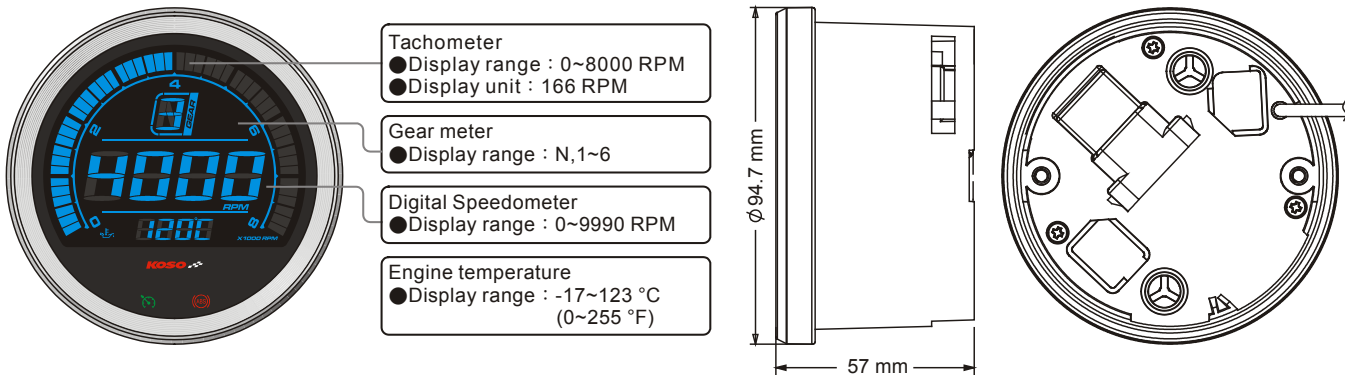
2-3 Installation instructions



Steps

1. Meter
2. STD Meter O-ring
3. STD Meter bracket
4. M4 washer X2 (Accessorie 2)
5. M4 x P0.7 nut X2 (Accessorie 3)

3 Overview



- Tachometer**
 - Display range : 0~8000 RPM
 - Display unit : 166 RPM
- Gear meter**
 - Display range : N,1~6
- Digital Speedometer**
 - Display range : 0~9990 RPM
- Engine temperature**
 - Display range : -17~123 °C (0~255 °F)

3-1 Settings Instructions

| | | | |
|----------------------|---------------------------------------|-------------------------------|---|
| ● Digital Tachometer | Display range : 0~9990 RPM | ● Effective temperature range | -10~60 °C |
| ○ Tachometer | Display range : 0~8000 RPM | ● Meter standard | JIS D 0203 |
| | Display unit : 166 RPM | ● Meter size | D97.4 X 57 mm |
| ○ Engine temperature | Display range : -17~123 °C (0~255 °F) | ● Meter weight | |
| ○ Gear meter | Display range : N,1~6 | ● Indicator light color | Cruise control light (Orange / Green) ABS Light (Yellow) |
| ● Effective voltage | DC 12 V | | |

NOTE Design and specifications are subject to change without notice!

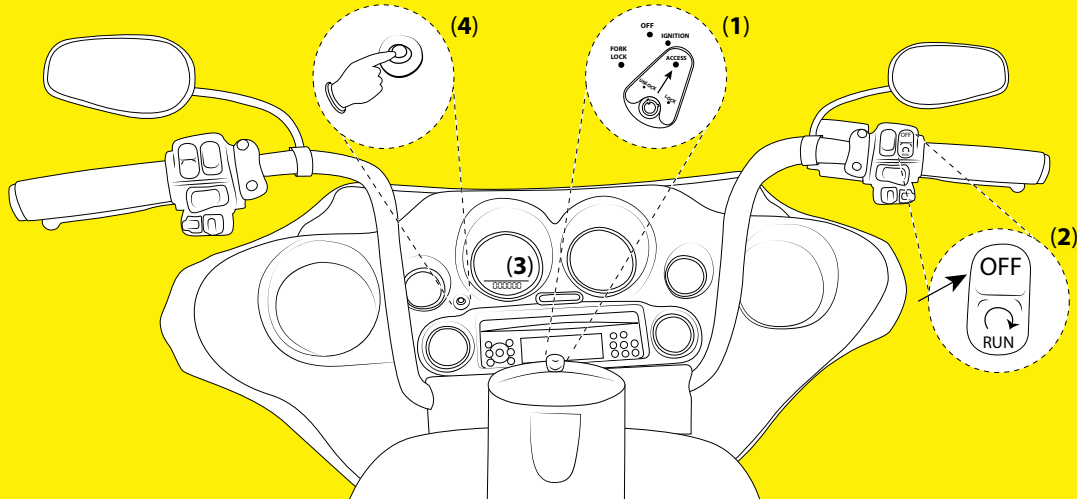
NOTE Please be advised this meter was programmed according original factory parameters. If the vehicle has been modified or customized and the parameters have been change, then the meter display might not be accurate

NOTE The backlight adjustment (brightness and color) must be done through the Speedometer housing with the communication harness.

4 Entering the settings

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

- A : The key must be switched to ON/ACCESSORIES (1).
- B : The Engine OFF/Run must be OFF (2).
- C : The speedometer must be displaying ODOMETER (3).
- D : Press and hold the Trip/Reset button down for 3 seconds to enter the settings (4).
- E : Use the Trip/Reset button to navigate through the settings (4).



- ☒ In the main screen, hold the button for 3 seconds to enter in the settings screen.

⚠ To set the settings for the tachometer, install it in the speedometer housing use the speedo connection. After the setting is done, remove the tachometer & install it in the original tacho housing



4-1 Engine temperature setting

- ☒ Hold the button for 3 seconds to enter the Engine temperature setting screen.

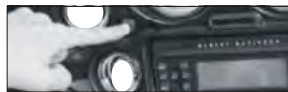


- ☒ EX. To change the setting to 37 °C
- ☒ Press the Adjust button to change the setting.

NOTE Default:°F

⚠ Now the default is flashing

NOTE Setting range:°F or °C



- ☒ EX. To change the setting from 105 °F to 37 °C.
- ☒ Hold the button for 3 seconds to go back to the Engine temperature setting screen.



- ☒ Hold the button for 3 seconds to go back to the Engine temperature display setting screen.



- ☒ The main screen.



5 Troubleshooting

The following situation does not indicate malfunction of the meter. Please check the following points, before taking it in for repairs.

| Trouble | Check item |
|--|---|
| The meter doesn't work when the power is on. | <ul style="list-style-type: none"> ☒ The power doesn't supply to the meter. ☒ Please make sure the wiring is connected. The wiring and fuse are not broken. ☒ The battery is broken or the battery is too old to supply enough power DC 12V to make the meter work. |



Thank you for purchasing KOSO's Harley Davidson Oil Pressure Meter. Before operating this unit, please read the instructions thoroughly and retain them for future reference.

⚠ Notice

1. This meter only function 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. Dissassembling this unit will void your warranty. Maintenance and repairs should be executed by Professionals only.

SYMBOL MEANING:

⚠ Some procedures must be followed in order to avoid faulty installation.

⚠ WARNING! Some procedures must be followed to avoid damages from occurring to yourself and others.

⚠ CAUTION! Some procedures must be followed to avoid damages from occurring to the vehicle.



FLASH



LIGHT ON

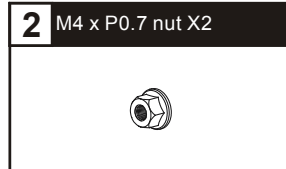
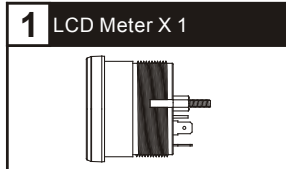


PRESS THE
BUTTON ONE
TIME



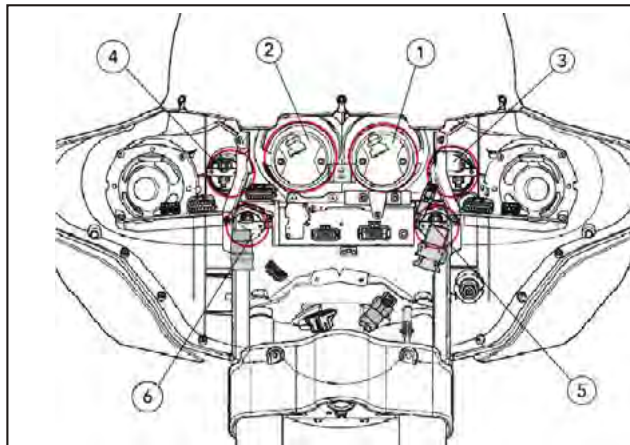
PRESS THE
BUTTON 3
SECONDS

1 Accessories



NOTE Please contact your local distributor if the items received are not the same as the items listed above.

2-1 Gauge location



- ① HD-02S 4" Speedometer
- ② HD-02R 4" Tachometer
- ③ HD-02T 2" Ambient Temp. Meter
- ④ HD-02V 2" Voltage Meter
- ⑤ HD-02F 2" Fuel Meter
- ⑥ HD-02P 2" Oil Pressure Meter

NOTE Gauge positioning and identification for 2004-2013 Harley-Davidson FLHT / FLHX / FLTR. For any other models, refer to the service manual.

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.



5. Remove the mounting hardware.



3. Disconnect the headlight connector.



6. Remove the meter from the inner fairing.

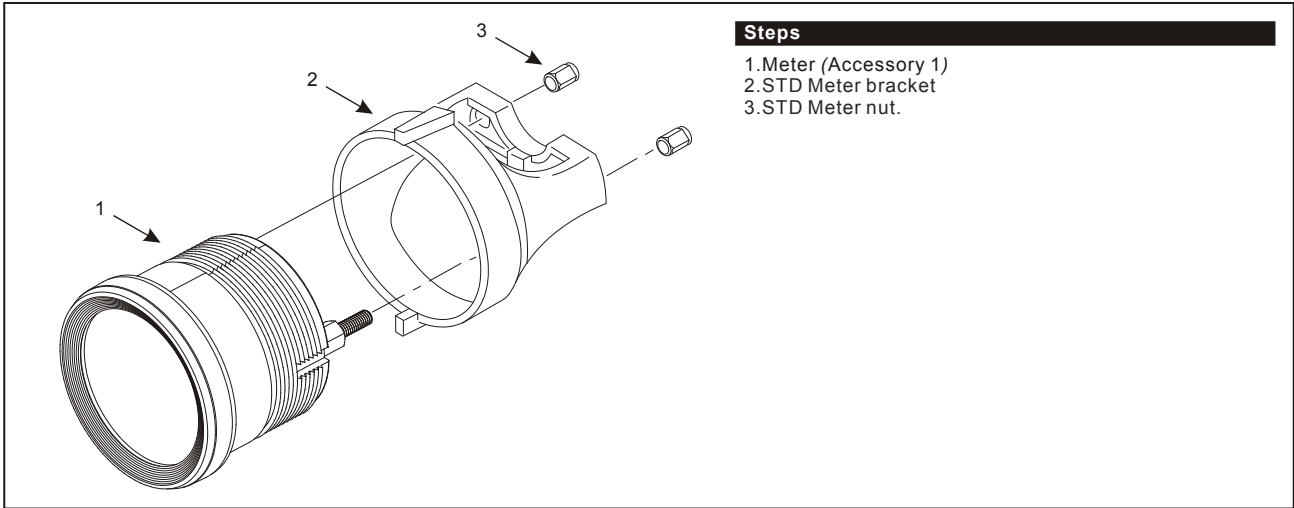


4. Disconnect the wiring from the Speedometer, tachometer, ambient temp. meter, volt meter, fuel meter, and oil pressure meter.

7. Replace the meter with the new KOSO version.

NOTE The installation will be the same procedure backwards

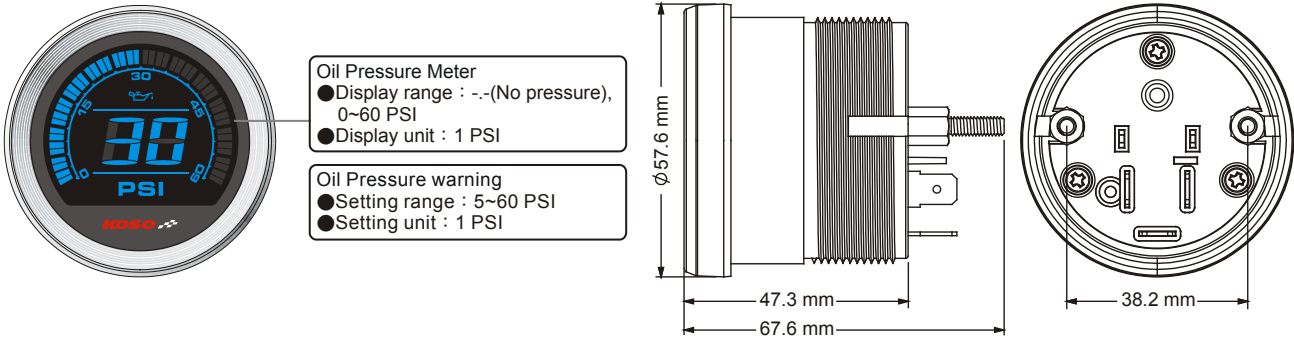
2-3 Installation instructions



Steps

1. Meter (Accessory 1)
2. STD Meter bracket
3. STD Meter nut.

3 Overview



3-1 Function, setting instruction

| | | | |
|------------------------|---|-------------------------------|-----------------|
| ● Oil Pressure Meter | Display range : --(No pressure), 0~60 PSI Display unit : 1 PSI | ● Effective temperature range | -10~60 °C |
| ○ Oil Pressure warning | Setting range : 5~60 PSI Setting unit : 1 PSI | ● Meter standard | JIS D 0203 |
| ● Effective voltage | DC 12 V | ● Meter size | D57.5 X 47.3 mm |
| | | ● Meter weight | 86g |

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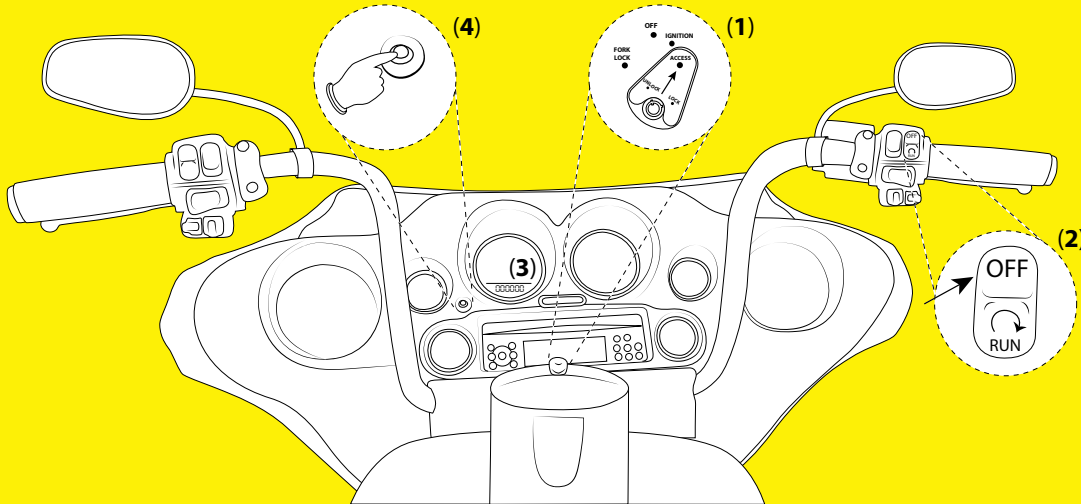
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NOTE The backlight adjustment (brightness and color) must be done through the Speedometer housing with the communication harness.

4 Entering in the settings screen

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

- A : The key must be switched to ON/ACCESSORIES (1).
- B : The Engine OFF/Run must be OFF (2).
- C : The speedometer must be displaying ODOMETER (3).
- D : Press and hold the Trip/Reset button down for 3 seconds to enter the settings (4).
- E : Use the Trip/Reset button to navigate through the settings (4).



- ☒ In the main screen, hold the button for 3 seconds to enter into the settings screen.



4-1 Oil Pressure warning settings screen

- ☒ Press the button to change the settings



- ☒ EX. The Oil Pressure warning is 15 PSI.
- ☒ Press and hold the button for 3 seconds to move to the digit you want to set.

⚠ Now the default is flashing

NOTE Default: 10 PSI

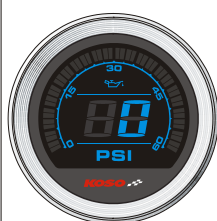
NOTE Setting range : 5~60 PSI



- ☒ EX. You want to set the Oil Pressure warning at 10 PSI to 15 PSI.
- ☒ Press and hold the button for 3 seconds to enter back into the main screen.



- ☒ Back to the main screen.



5 Troubleshooting

The following situations do not indicate malfunction of the meter. Please check the following points, before taking it in for repairs.

| Trouble | Check item |
|--|--|
| The meter doesn't work when the power is on. | <ul style="list-style-type: none"> ☒ If there is no power being supplied to the meter. ☒ Make sure the wires are connected and that the wiring and fuse are not broken. ☒ The battery is broken or the battery is too old to supply enough power (DC 12V) to make the meter work. |



Thank you for purchasing KOSO's Harley Davidson Volt meter. Before operating this unit, please read the instructions thoroughly and retain them for future reference.

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4. Dissassembling this unit will void your warranty. Maintenance and repairs should be executed by professionals only.

SYMBOL MEANING:

⚠ Some procedures must be followed in order to avoid faulty installation.

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FLASH



LIGHT ON

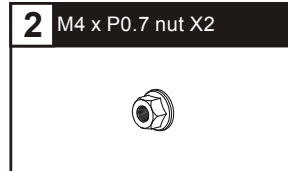
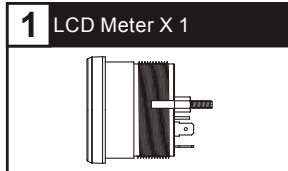


PRESS THE
BUTTON ONE
TIME



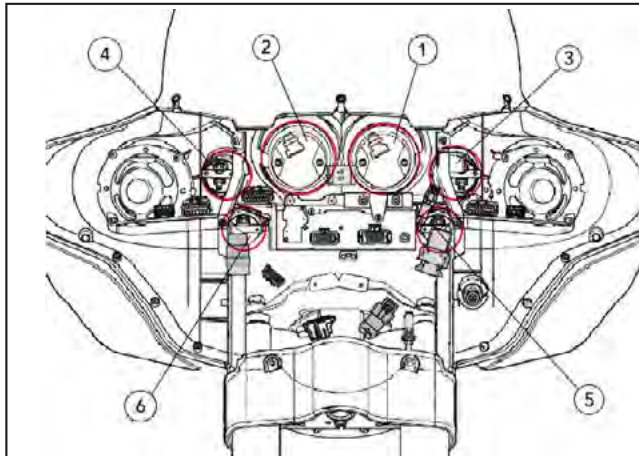
PRESS THE
BUTTON 3
SECONDS

1 Accessories



NOTE Please contact your local distributor if the items received are not the same as the items listed above.

2-1 Gauge location



- ① HD-02S 4" Speedometer
- ② HD-02R 4" Tachometer
- ③ HD-02T 2" Ambient Temp. Meter
- ④ HD-02V 2" Voltage Meter
- ⑤ HD-02F 2" Fuel Meter
- ⑥ HD-02P 2" Oil Pressure Meter

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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.



5. Remove the mounting hardware.



3. Disconnect the headlight connector.



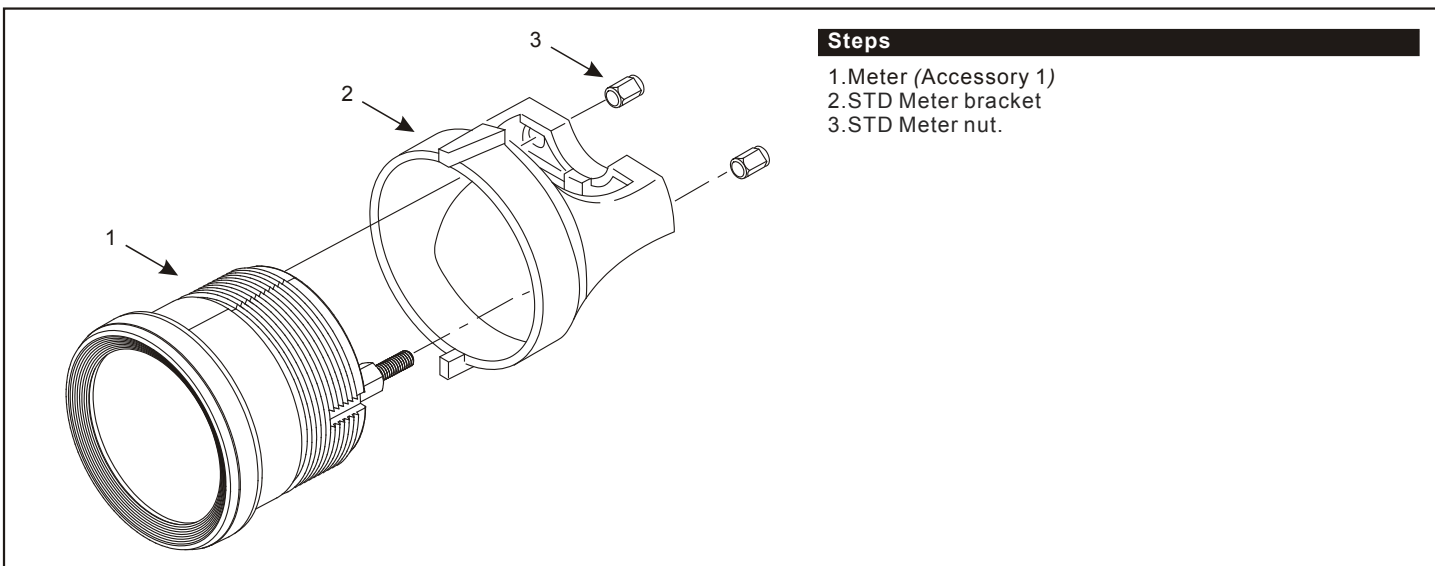
6. Remove the meter from the inner fairing.
7. Replace the meter with the new KOSO version.



4. Disconnect the wiring from the speedometer, tachometer, ambient temp. meter, volt meter, fuel meter, and oil pressure meter.

NOTE The installation will be the same procedure backwards

2-3 Installation instructions



Steps

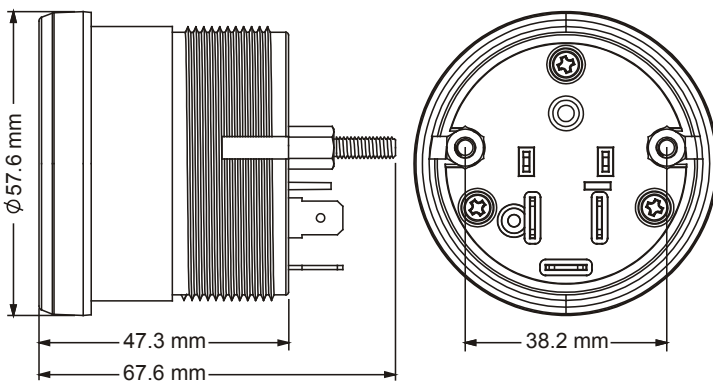
1. Meter (Accessory 1)
2. STD Meter bracket
3. STD Meter nut.

3 Overview



Voltage Meter
 ● Display range : 8.0 ~16.0 V
 ● Display unit : 0.1 V

Voltage warning
 ● Setting range : 8.0 ~16.0 V
 ● Setting unit : 0.1 V



3-1 Settings instructions

| | | | |
|---------------------|---|-------------------------------|-----------------|
| ● Voltage Meter | Display range : 8.0 ~16.0 V Display unit : 0.1 V | ● Effective temperature range | -10~60 °C |
| ○ Voltage warning | Setting range : 8.0 ~16.0 V Setting unit : 0.1 V | ● Meter standard | JIS D 0203 |
| ● Effective voltage | DC 12 V | ● Meter size | D57.5 X 47.3 mm |
| | | ● Meter weight | 86 g |

NOTE Design and specifications are subject to change without notice!

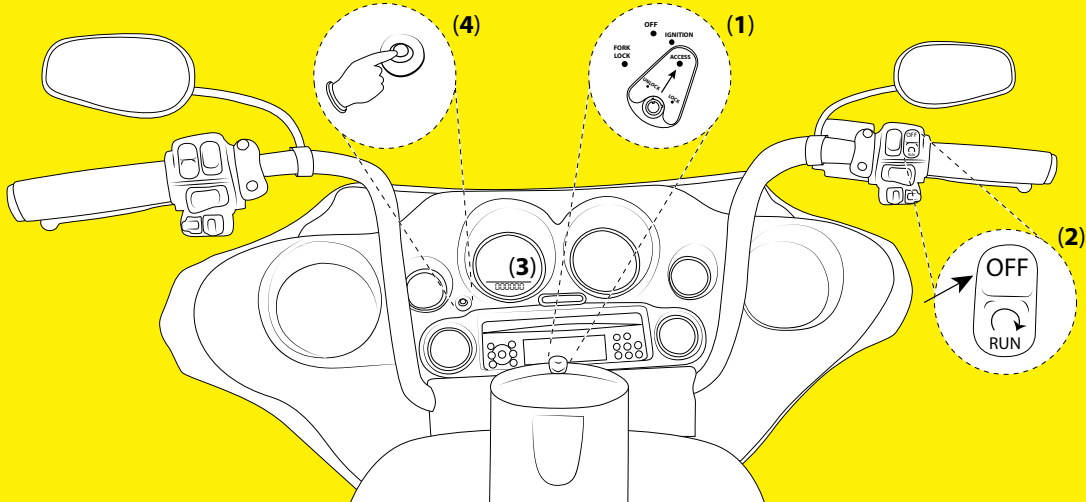
NOTE Please be advised this meter was programmed according original factory parameters. If the vehicle has been modified or customized and the parameters have been change, then the meter display might not be accurate


NOTE The backlight adjustment (brightness and color) must be done through the Speedometer housing with the communication harness.

4 Entering the settings


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

- A : The key must be switched to ON/ACCESSORIES (1).
- B : The Engine OFF/Run must be OFF (2).
- C : The speedometer must be displaying ODOMETER (3).
- D : Press and hold the Trip/Reset button down for 3 seconds to enter the settings (4).
- E : Use the Trip/Reset button to navigate through the settings (4).






☒ In the main screen, hold the button for 3 seconds to enter in the settings screen.




☒ EX. You want to set the Voltage warning at 15% to 25%.
☒ Press and hold the button for 3 seconds to enter back into the main screen.


4-1 Voltage warning settings screen



☒ Press the button to change the settings



☒ Back to the main screen.



☒ EX. The Voltage warning is 13.5 V.
☒ Press and hold the button for 3 seconds to move to the digit you want to set.

⚠ Now the default is flashing

NOTE Default: 11.5 V

NOTE Setting range : 8.0 ~ 16.0 V.

5 Troubleshooting

The following situations do not indicate malfunction of the meter. Please check the following points, before taking it in for repairs.

| Trouble | Check item |
|--|---|
| The meter doesn't work when the power is on. | <ul style="list-style-type: none"> ☒ If there is no power being supplied to the meter. ☒ Make sure the wires are connected and that the wires and fuse are not broken. ☒ The battery is broken or the battery is too old to supply enough power (DC 12V) to make the meter work. |



Thank you for purchasing KOSO's Harley Davidson Fuel meter. Before operating this unit, please read the instructions thoroughly and retain them for future reference.

⚠ Notice

1. This meter only function 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 and repairs should be executed by our professionals only.

SYMBOL MEANING:

⚠ Some procedures must be followed in order to avoid faulty installation.

⚠ WARNING! Some procedures must be followed to avoid damages from occurring to yourself and others.

⚠ CAUTION! Some procedures must be followed to avoid damages from occurring to the vehicle.



FLASH



LIGHT ON



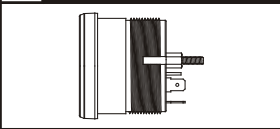
PRESS THE BUTTON ONE TIME



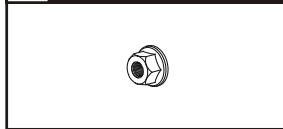
PRESS THE BUTTON 3 SECONDS

1 Accessories

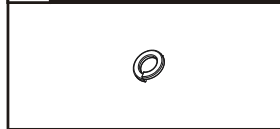
1 LCD Meter X 1



2 M4 x P0.7 nut X2

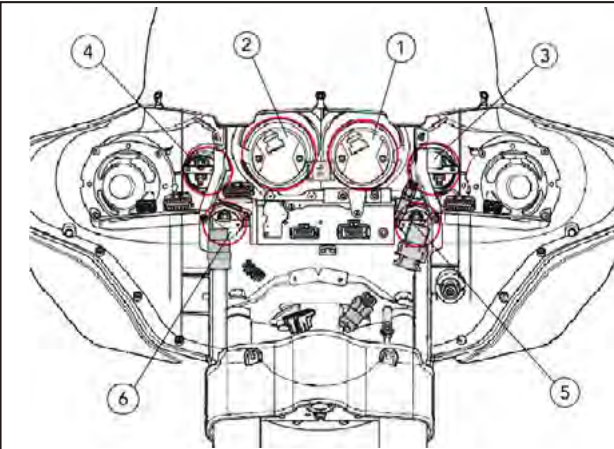


3 M4 washer X2



NOTE Please contact your local distributor if the items received are not the same as the items listed above.

2-1 Gauge location



- ① HD-02S 4" Speedometer
- ② HD-02R 4" Tachometer
- ③ HD-02T 2" Ambient Temp. Meter
- ④ HD-02V 2" Voltage Meter
- ⑤ HD-02F 2" Fuel Meter
- ⑥ HD-02P 2" Oil Pressure Meter

NOTE Gauge positioning and identification for 2004-2013 Harley-Davidson FLHT / FLHX / FLTR. For any other models, refer to the service manual.

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.



3. Disconnect the headlight connector.



4. Disconnect the wiring from the speedometer, tachometer, ambient temp. meter, volt meter, fuel meter, and oil pressure meter.



5. Remove the mounting hardware.

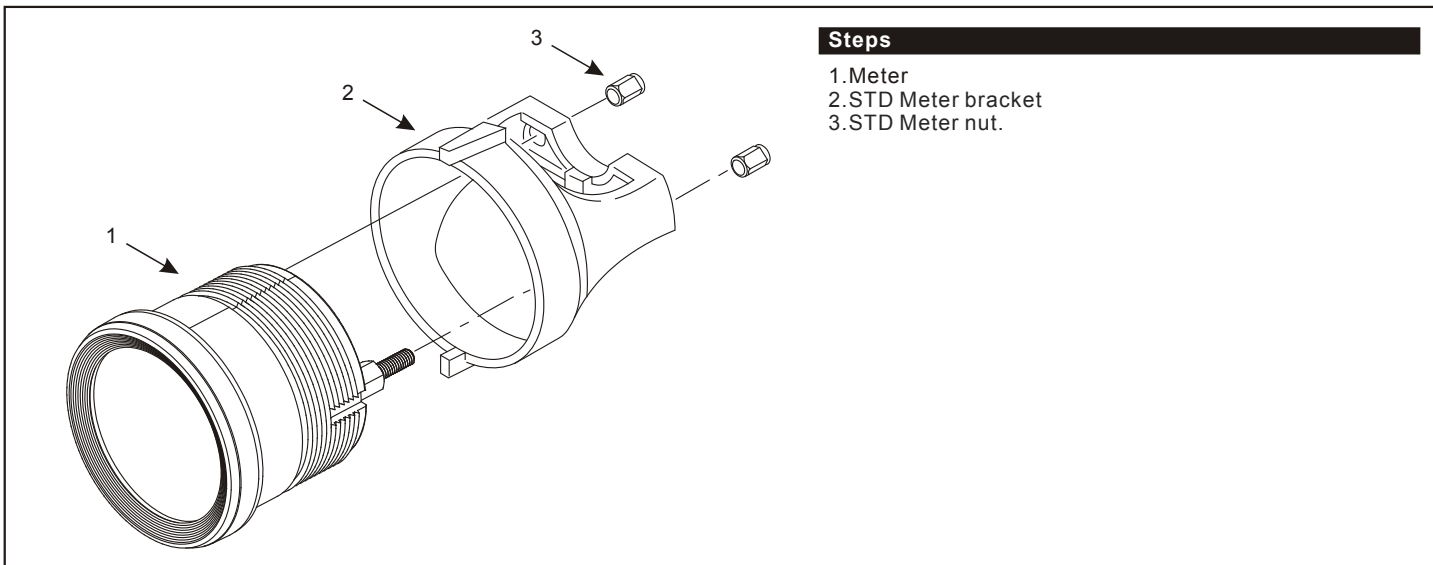


6. Remove the meter from the inner fairing.

7. Replace the meter with the new KOSO version.

NOTE The installation will be the same procedure backwards

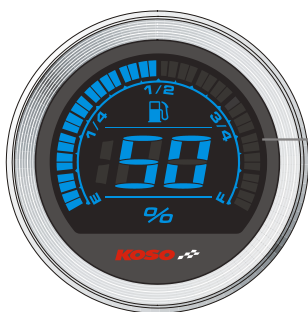
2-3 Installation instructions



Steps

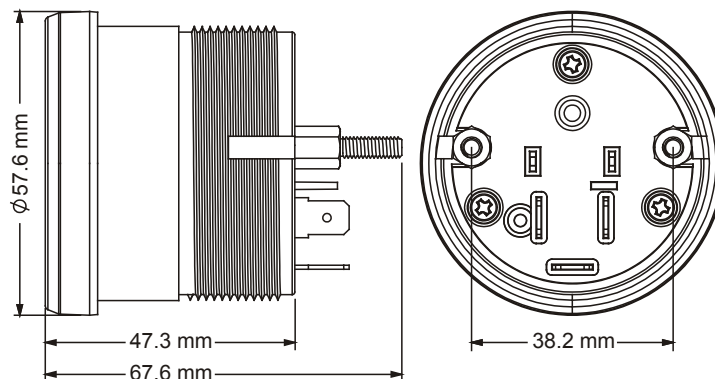
1. Meter
2. STD Meter bracket
3. STD Meter nut.

3 Overview



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

Fuel warning
 ● Setting range : 0~30 %
 ● Setting unit : 1 %



3-1 Function instructions

| | | | |
|----------------|--|-------------------------------|---------------------------|
| ● Fuel Meter | Display range : 0~100 % Display unit : 1 % | ● Backlight color | Setting range: Blue / Red |
| ○ Fuel warning | Setting range : 0~30 % Setting unit : 1 % | ● Effective voltage | DC 12 V |
| ● Fuel type | Setting range: SET 04 IF vehicle year is 2004~2007 SET 08 IF vehicle year is 2008~2013 | ● Effective temperature range | -10~60 °C |
| | | ● Meter standard | JIS D 0203 |
| | | ● Meter size | D57.5 X 47.3 mm |
| | | ● Meter weight | Around 86 g |

NOTE Design and specifications are subject to change without notice!

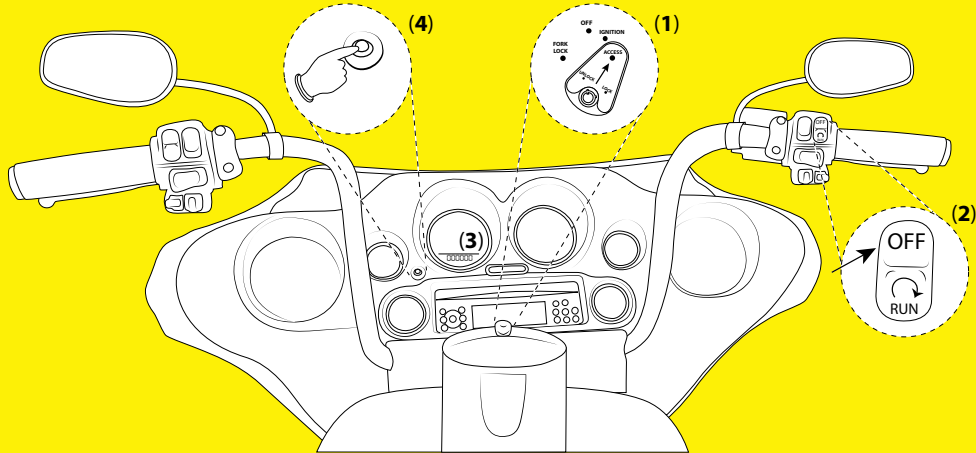
NOTE Please be advised this meter was programmed according original factory parameters. If the vehicle has been modified or customized and the parameters have been change, then the meter display might not be accurate

NOTE The backlight adjustment (brightness and color) must be done through the Speedometer housing with the communication harness.

4 Entering the settings

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

- A : The key must be switched to ON/ACCESSORIES (1).
- B : The Engine OFF/Run must be OFF (2).
- C : The speedometer must be displaying ODOMETER (3).
- D : Press and hold the Trip/Reset button down for 3 seconds to enter the settings (4).
- E : Use the Trip/Reset button to navigate through the settings (4).



☒ In main screen, Press hold pressing the button for 3 seconds to enter the setting screen.

4-1 Fuel warning setting screen

☒ Press the button to change the setting.

☒ EX. The Fuel warning is 13.5 V.
☒ Press hold pressing the button for 3 seconds to move to the digit you want to set.

⚠ Now the default is flashing

NOTE Default: 15%

NOTE Setting range : 15%

☒ EX. You want to set the Fuel warning at 15% to 25%.
☒ Press hold pressing the button for 3 seconds to enter the fuel type setting screen.

4-2 Fuel type setting screen

☒ Press the button to change the setting.

☒ EX. You want to set the Fuel type at 08 to 04.
☒ Press hold pressing the button for 3 seconds to enter the main screen.

⚠ Now the default is flashing

NOTE Default: 08

NOTE Setting range :
04-04~07 year Vehicles
08-08~13 year Vehicles

☒ The main screen.

5 Troubleshooting

The following situation do not indicate malfunction of the meter. Please check the following before taking it in for repair.

| Trouble | Check item |
|--|---|
| The meter doesn't work when the power is on. | <ul style="list-style-type: none"> ☒ The power doesn't supply to the meter. ☒ Please make sure the wiring is connected. The wiring and fuse are not broken. ☒ The battery is broken or the battery is too old to supply enough power DC 12V to make the meter work. |



Thank you for purchasing KOSO's Harley Davidson Oil Temperature meter. Before operating this unit, please read the instructions thoroughly and retain them for future reference.

⚠ Notice

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 and repairs should be executed by Professionals only.

SYMBOL MEANING:

⚠ Some procedures must be followed in order to avoid faulty installation.

⚠ WARNING! Some procedures must be followed to avoid damages from occurring to yourself and others.

⚠ CAUTION! Some procedures must be followed to avoid damages from occurring to the vehicle.



FLASH



LIGHT ON

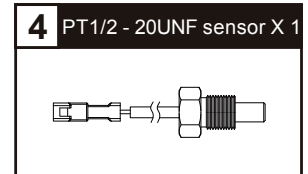
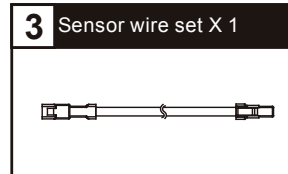
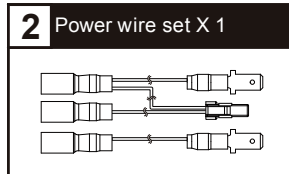
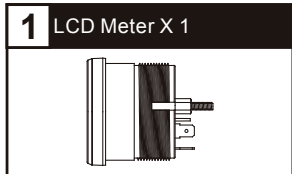


PRESS THE BUTTON ONE TIME



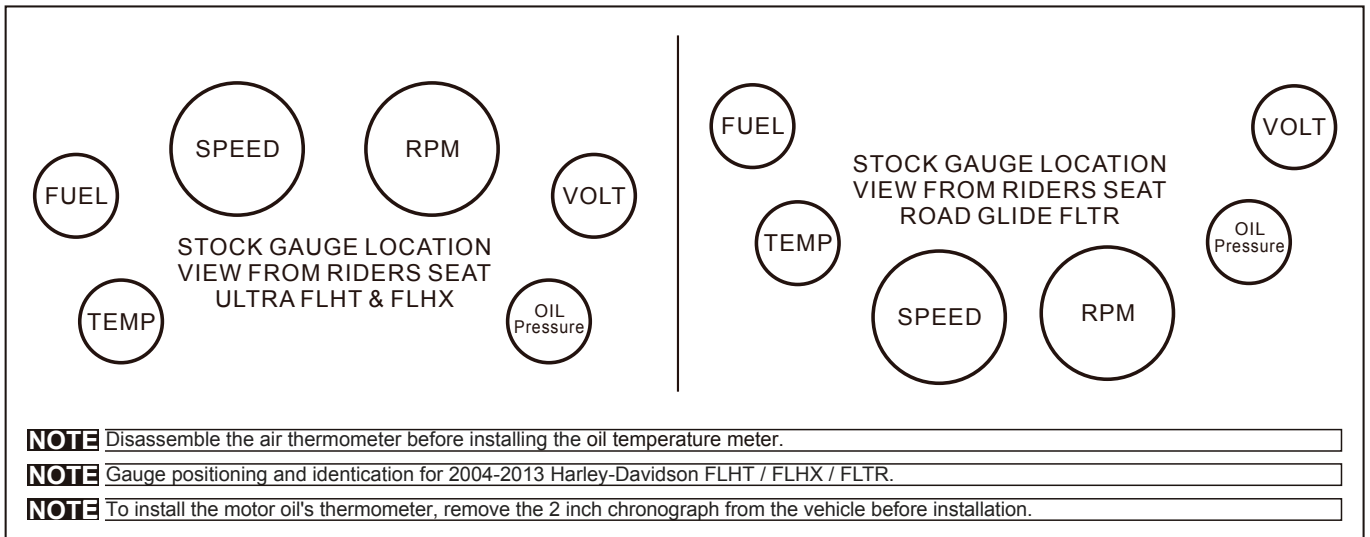
PRESS THE BUTTON 3 SECONDS

1 Accessories



NOTE Please contact your local distributor if the items received are not the same as the items listed above.

2-1 Gauge location



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.

5. Remove the mounting hardware.



3. Disconnect the headlight connector.



6. Remove the meter from the inner fairing.

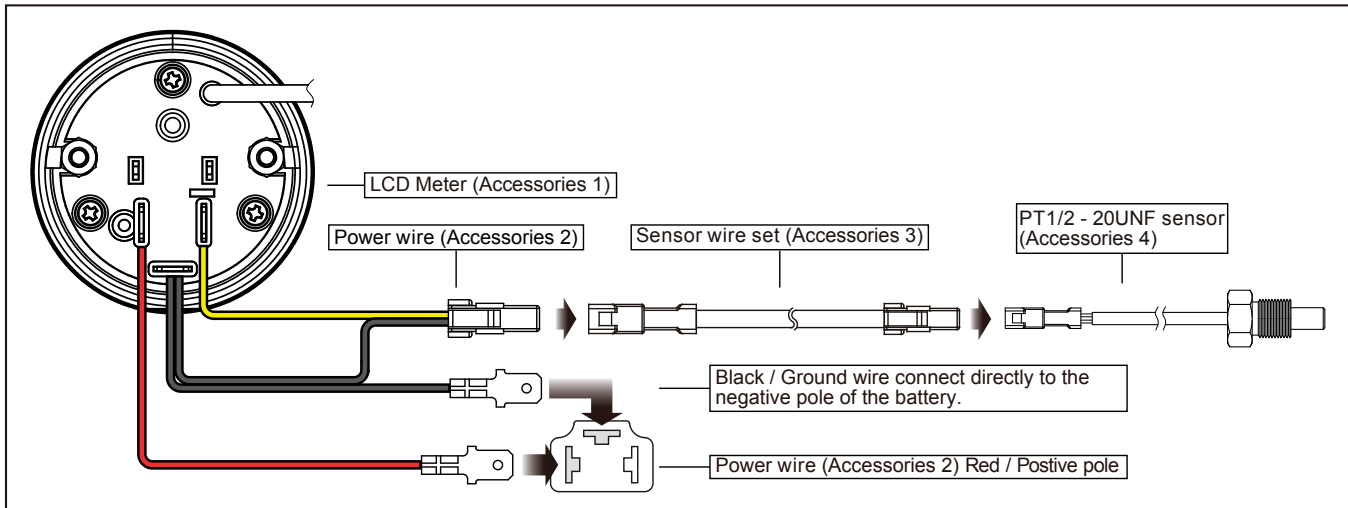


4. Disconnect the wiring from the speedometer, tachometer, ambient temp. meter, volt meter, fuel meter, and oil pressure meter.

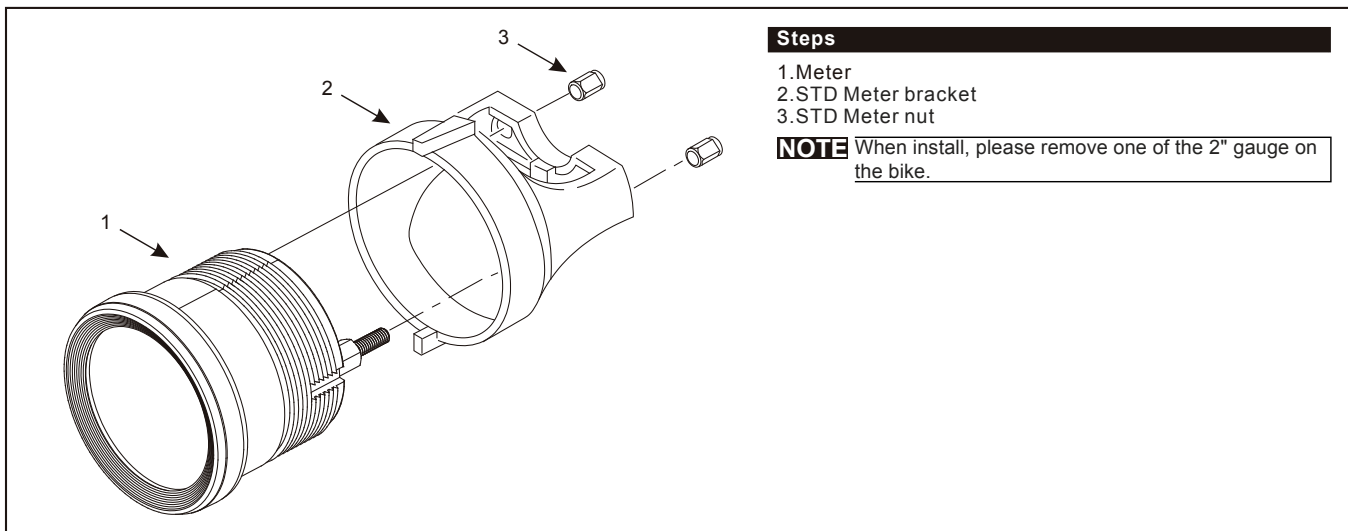
NOTE The installation will be the same procedure backwards

7. Replace the meter with the new KOSO version.

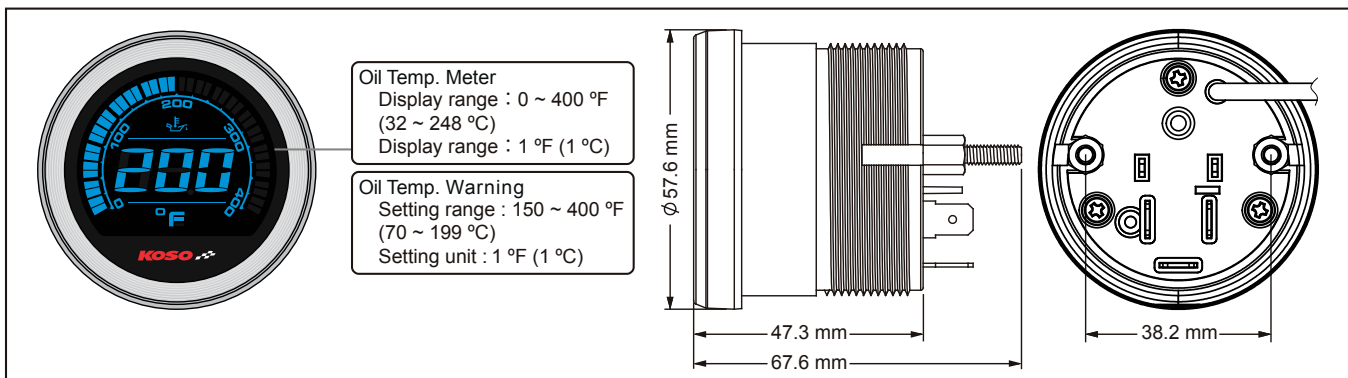
2-3 Wiring Installation Instructions



2-4 Installation Instructions



3-1 Overview



3-2 Function, setting instruction

| | | | |
|-------------------|--|-----------------------------|----------------------------|
| Oil Temp. Meter | Display range : 0 ~ 400 °F (32 ~ 248 °C) Display unit : 1 °F (1 °C) | Backlight color | Setting range : Blue / Red |
| Oil Temp. warning | Setting range : 150 ~ 400 °F (70 ~ 199 °C) Setting unit : 1 °F (1 °C) | Backlight setting | Setting range : 1~5 |
| Effective voltage | DC 12 V | Effective temperature range | -10 ~ 60 °C |
| | | Meter standard | JIS D 0203 |
| | | Meter size | D57.5 X 47.3 mm |
| | | Meter weight | 86 g |

NOTE Design and specifications are subject to change without notice!

NOTE Please be advised this meter was programmed according to original factory parameters. If the vehicle has been modified or customized and the parameters have been change, then the meter display might not be accurate

NOTE The backlight adjustment (brightness and color) must be done through the Speedometer housing with the communication harness.

4-4 Backlight settings

Press the **button** to change the setting.



EX. You want to set the backlight at 3 .
Press and hold the **button for 3 seconds**
to go back to the main screen.

NOTE Default : 5

⚠ Now the default is flashing

NOTE Setting range : 1 ~ 5



Main screen.



5 Oil temperature sensor

Remove the drain plug and replace it with the Koso oil temperature sensor (Item #4). Remove the O-ring from the drain plug and install it on the temperature sensor to avoid any oil leak. However, we do recommend that you install a new O-ring to ensure proper use.

Torque the Sensor at 1/4. Apply pressure of 10 to 12 ft lbs.

Once installation is complete, warm up the engine and verify that there is no oil leak before riding your bike.

6 Troubleshooting

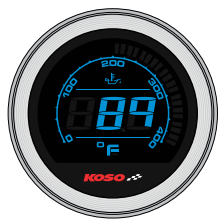
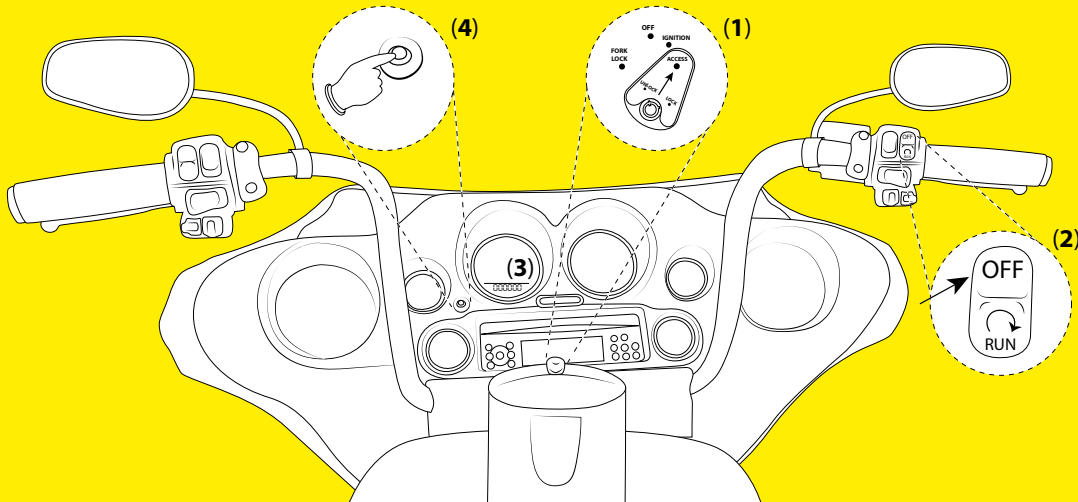
The following situations do not indicate malfunction of the meter. Please check the following points, before taking it in for repairs.

| Trouble | Check item |
|--|---|
| The meter doesn't work when the power is on. | If there is no power being supplied to the meter. Make sure the wires are connected and that the wires and fuse are not broken. The battery is broken or the battery is too old to supply enough power (DC 12V) to make the meter work. |
| Temp does not appear or appears incorrectly. | Check the sensor. Is the wire or temperature sensor broken? |

4 Entering the settings

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

- A : The key must be switched to ON/ACCESSORIES (1).
- B : The Engine OFF/Run must be OFF (2).
- C : The speedometer must be displaying ODOMETER (3).
- D : Press and hold the Trip/Reset button down for 3 seconds to enter the settings (4).
- E : Use the Trip/Reset button to navigate through the settings (4).



In the main screen, hold the **button for 3 seconds** to enter in the settings screen.



4-1 Temperature unit settings

EX. To change the setting to °C. Press the **button** to change the setting.

NOTE Default: °F

⚠ Now the default is flashing

NOTE Setting range: °F or °C



EX. To change the setting from °F to °C. Hold the **button for 3 seconds** to enter the Oil temp. warning setting screen.



4-2 Oil temp. warning settings

Press and hold the **button for 3 seconds** to move to the digit you want to set.

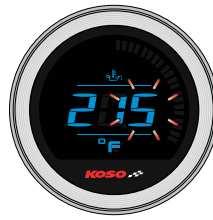


EX. Oil temp. warning is 212 °F. Press the button to change the setting.

⚠ Now the default is flashing.

NOTE Default : 212 °F

NOTE Setting range : 150 ~ 400 °F



EX. You want to set the oil temp. warning at 212 °F to 215 °F. Press and hold the **button for 3 seconds** to enter the backlight color setting screen.



4-3 Backlight color settings

Press the button to change the setting.



EX. You want to set the backlight color at rE (Red). Press hold pressing the **button for 3 seconds** to enter the backlight setting screen.

NOTE Default : bu (Blue)

⚠ Now the default is flashing

NOTE Setting range : bu (Blue) and rE (Red)

