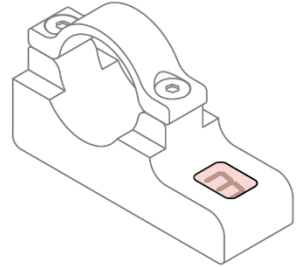


## Description

Thank you for purchasing a **Gearingo** gear indicator.

This indicator provides a fast and accurate display of which gear is engaged on your motorcycle. It communicates with the ECM module to access the information from the gear position sensor located in the transmission housing.



The installation of the indicator typically takes only 10 minutes and you're not going to need any special tools – it is truly plug-and-play. There is a section at the back of the document detailing an advanced setup mode, but in most cases, that's not something that you will find necessary to read.

Please check the product website [www.gearingo.com](http://www.gearingo.com) for updates to this document.

## Installation

### **Tools Provided**

- 3/32 Allen key to secure unit to the handlebar.
- Cable ties to secure the cable to frame.

## GEARINGO GEAR INDICATOR

***Before securing the gear indicator to the handlebar, please test the its operation with your bike. Do this by plugging the indicator into the diagnostic connector on your bike and testing the response by changing gears with the gear pedal. Make sure that your bike is in neutral, with the ignition key off, whenever you plug the Gearingo into the diagnostic connector.***

After confirming that the unit is working properly with your bike, you can secure it to the handlebar.

The gear indicator clamps to the handlebar using the two 8-32 flat head screws.

Please ensure that the screw heads sit into the countersink holes on the clamp before tightening down on the screws – do not force the screw!

You can install the gear indicator so that the display hangs either below the bar, under-bar mode, or vertically, so that the display is above the bar, called over-bar mode. If you install the display and the numbers are upside down, you can flip the display electronically: this is explained in the **Advanced Setup** section at the back of this manual.

The gear indicator comes with a 49-inch automotive grade cable with a pre-wired connector to match the diagnostic connector on your bike. The cable should be long enough to be routed from the handlebar, through the cable guides on the front forks, and underneath the gas tank to either the clutch-side panel, or under the seat, depending on the diagnostic connector location on your bike.

## GEARINGO GEAR INDICATOR

- Remove the clutch-side panel (Storm), or the seat (Commander/LT) and locate the diagnostic connector on your bike.
- Route the cable to minimize the heat exposure from the cylinder – do not place the cable in direct contact with the cylinder as this may damage the cable.
- Use the cable ties provided to secure the cable to the bike frame and cable guides.
- With the bike in neutral, plug the Gearingo cable connector into the diagnostic connector and position it so that the side panel or seat can be replaced with the two connectors plugged into each other. Replace the side panel or seat.

The indicator communicates with the bike's ECM to retrieve the gear information, there will be no delay when updating the display - the response is 100% accurate and instantaneous at all speeds, and for all gears. **When you first plug in the unit be sure that your bike is in neutral and the kill switch is in the RUN position** – this is to avoid making any unintentional changes to its operation, as described in the **Advance Setup** section at the end of this document.

The Gearingo requires no setup or calibration and no modifications to the bike, once the unit is plugged in it will begin displaying the gear position.

If after plugging the Gearingo into the connector the unit displays the voltage but does not display the gear, but instead continues to flash the centre LED, then the Gearingo may not be compatible with your bike.

## GEARINGO GEAR INDICATOR

This gear indicator can display the battery voltage. This is displayed by default whenever the ignition key is turned on or off, but this feature can be disabled using the advanced setup functions.

The indicator turns on and off automatically with the ignition key. In the off mode, the indicator draws a very small trickle current which allows it to activate instantaneously when you turn the ignition key to RUN. In normal circumstances, because of its micro-power design, the gear indicator power should have little effect on your bike's battery, however, you should **unplug the Gearingo from the diagnostic connector whenever storing the bike for a few weeks or more.**

**Indicator Description**

The table below lists the gear indicator LED display messages. Since the Gearingo has a single digit display, it flashes voltage and temperature readings one digit at a time, with a short pause in between.

The indicator flashes indefinitely waiting for a message from the ECM. This is the display when you first plug in the unit.



Neutral

0

Gear

1

Gear

2

Gear

3

Gear

4

Gear

5

## GEARINGO GEAR INDICATOR

Gear

6

Temperature  
Fahrenheit

F 72

Temperature  
Celsius

C 22

Voltage  
Example 12.5V

U 12.5

Low Battery Voltage (<11.3 V)

L

Note: If the battery voltage is 11V, the display flashes off momentarily between the first and second '1' digits. Likewise, if the temperature is two identical digits (like 44, 55, 66 etc.) the display flashes off between the first and second digit.

### Clutch Control of Coolant Temperature Display

It is possible to display the coolant temperature, even while you're riding. This is done by pulling the clutch in, releasing it, and repeating this twice. The display should flash the temperature after the second release. It will take a bit of practice to get the timing of the clutch correct but should be easy once you get the hang of it.

To display the temperature using the clutch:

1. Pull in the clutch. Wait 1 second.
2. Release the clutch. Wait 1 second.
3. Pull in the clutch. Wait 1 second.
4. Release the clutch.

### Diagnostic Connector



The gear indicator plugs into the bike's diagnostic connector. This connector is located either under the seat (LT and Rocket) or behind the right side panel. When you find the connector confirm that it has the two contacts shown in the picture at right.

#### **DIAGNOSTIC CONNECTOR**

**CONFIRM THAT THE TWO CONTACTS SHOWN ABOVE ARE THERE IN THE CONNECTOR.**

### Advanced Setup

The gear indicator does not have setup buttons to control its operation. However, the module does know what gear the bike is in, and it uses this information when it is plugged into the diagnostic connector to enable or disable options. You can only do this when the bike is parked since you need to unplug the unit.

So, for example, to enable or disable the voltage display, put the bike into third gear, unplug the module from the diagnostic connector, wait a few seconds and then reconnect it. The gear indicator will power-up like usual and display the battery voltage, but it will then flash a **P** followed by a **3**, then another **P** followed by a second **3** : this is done to give you time to confirm that it is in the program setup mode. It will then display either the number **1** to indicate that the voltage will be displayed when the key is turned on, or **0** to indicate that it will not. If you require the opposite function of what is already set (0 or 1), then you must unplug and re-plug the module since the setting toggles each time the unit is powered up.

The table below lists the gear setting and what feature it enables or disables.



## GEARINGO GEAR INDICATOR

		Display sequence		
Voltage displayed with the ignition key	Plug module into the connector when in <b>gear 3</b> .	<b>P 3 P 3</b>	<i>delay</i>	<b>1</b>
Voltage display disabled	Plug module into the connector when in <b>gear 3</b>	<b>P 3 P 3</b>	<i>delay</i>	<b>0</b>
The clutch sequence is used to trigger the temperature display.	Plug module into the connector when in <b>gear 4</b> .	<b>P 4 P 4</b>	<i>delay</i>	<b>1</b>
Clutch does not trigger the temperature display	Plug module into the connector when in <b>gear 4</b> .	<b>P 4 P 4</b>	<i>delay</i>	<b>0</b>
The readout is setup for the unit to hang under the handlebar.	Plug module into the connector when in <b>gear 5</b> .	<b>P 5 P 5</b>	<i>delay</i>	<b>0</b>
The display is flipped for mounting above the handlebar.	Plug module into the connector when in <b>gear 5</b> .	<b>P 5 P 5</b>	<i>delay</i>	<b>1</b>
The coolant temperature displays as deg F.	Plug module into the connector when in <b>gear 6</b> .	<b>P 6 P 6</b>	<i>delay</i>	<b>0</b>
The coolant temperature displays as deg C.	Plug module into the connector when in <b>gear6</b> .	<b>P 6 P 6</b>	<i>delay</i>	<b>1</b>

Table 1. Setting Gear Indicator Options



### Maintenance and Care

- Unplug the unit from the motorcycle's diagnostic connector when storing for 3 or more weeks – unless you keep your battery on a battery tender.
- Be careful when cleaning the Gearingo: it is water resistant for normal use, but it is not submersible. Clean the LED window gently with a lint free lens paper or a Q-tip.
- Re-apply WD40 to the head of the screws every few weeks to prevent corrosion.
- Do not pull on the cable or stress the connection at the base of the unit.



**Do not power-wash the gear indicator.**

### Troubleshooting

If the Gearingo stops displaying the gear, or turns off completely, put the bike in neutral, turn the engine off, switch the key from the RUN position, unplug the Gearingo from the diagnostic connector, wait at least 3 seconds, then plug it back in. This should reset the communication between the bike and the Gearingo, which on the rare occasion may be lost. If this continues to occur, this may indicate a weak battery.

**Removing the back cover or screw will damage the internal circuit board and sealant, and voids the warranty.**

## Specifications

<i>Gear Sensing</i>	Motorcycle gear position sensor, communication to Gearingo via CANBUS from ECM.
<i>Body colour</i>	Black powder painted
<i>Display</i>	Single digit 0.4-inch red LED
<i>Handlebar diameter</i>	1 inch or 1.25 inch
<i>Mounting method</i>	Two-piece aluminium housing with a handlebar clamp
<i>Mounting screws</i>	Black 8-32 flat head screws with 3/32 Hex
<i>Cable connection</i>	49-inch automotive grade cable with standard 16 pin diagnostic/OBD connector
<i>Input voltage</i>	8-18 VDC
<i>Typical operating current</i>	20 mA
<i>Display off sleep current</i>	4 mA
<i>Operating Temperature</i>	-10° to +120° F
<i>Power switching</i>	Automatic with the motorcycle ignition key
<i>Coolant Temperature</i>	Bike temperature sensor measured by the ECM.
<i>Battery voltage display accuracy</i>	±0.05V.

**Manufactured By**



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