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Introduction

The digital gear display on the Indy-Cator shifter knob functions on the principle of calculating the difference between two electronic sensors that detect minimal changes in the shifter knob's position. The result is indicated on the display as the shifter knob changes gears. Therefore, it functions completely independent of the vehicle transmission. The display only changes when a change has been reliably detected as a gearshift. This may require 1 to 1.5 sec.

This gear display is intended to serve only as an aid. No warranty is given for the correctness of the gear number. In the event that gears do not display correctly, the programming procedure should be repeated with the engine/transmission at operating temperature.

Depending on the particular type of vehicle and gear positions, brief cross fading in the display may occur at extreme acceleration. This is due to the physical characteristics of the sensors and is not a product or manufacturing defect.

Package contents

- 1 Indy-Cator shifter knob (1x)
- 2 Cable assembly and electronics box (1x)
- 3 Connecting data cable (1x)
- 4 Clamping ring (1x)
- 5 Set screws, length 10 mm & 14 mm (2x, one each)
- 6 Instructions for installation and use (1x)
- 7 Warranty Card (1x)



1. Typical methods for removing existing shifter knob

1.1.1

On some vehicles, the shifter knob is threaded on to the shift rod (e.g. VW, Vauxhall, Ford, etc.)

Check to see if the shift-lever boot is connected to the shifter knob. If it is not, simply turn or unscrew the shifter knob until it separates from the shift rod and then remove.

If shift-lever boot is connected to the shifter knob, carefully detach the shift-lever boot from the center console.

Turn the shifter knob and the shiftlever boot until it detaches from the shift rod, then remove both parts.

1.1.2

On other vehicles such as a BMW, the shifter knob is pushed on to the shift rod and can be pulled off.

1.2.1

If the vehicle is one described under Item 1.1.1, the shift-lever boot is already removed with the shifter knob. Separate the shift-lever boot from the shifter knob; they are usually connected with a ring (Figure 3). The ring must be removed carefully with a suitable tool. The shift-lever boot can then be separated from the shifter knob.

2. Examples for fitting the Indy-Cator shifter knob



Figure 2



Figure 3 Clamping ring (example VW Golf)

1.2.2

If the vehicle is one described under Item 1.1. (Figure 2), the shift-lever boot must be removed from the center console and pulled off over the shift rod until only the shift rod is visible (Figure 4).



Figure 4

2.1

Fit the shift-lever boot over the Indy-Cator shifter knob. This applies only to vehicles using this specific factory arrangement.

The existing shift-lever boot may not be wide enough. In this case, it should be widened with suitable tools to enable it to be fitted over the bottom end of the Indy-Cator shifter knob.

2.2

It is recommended to position the shift-lever boot between the shifter knob and clamping ring in order to keep the clamping ring covered with the clamping screw. On some vehicles, this is unfortunately not possible. In such cases, the clamping ring should be positioned over the shift-lever boot.

The position of the clamping ring must be follows:

- Where the shift-lever boot is in between, the clamping ring must be fitted with the radius towards the top and the radius rests against the shift boot (Figure 5.0).
- Where there is no shift-lever boot in between, the clamping ring must be fitted with the radius towards the bottom (Figure 5.1).



Radius at the top – here is the gap for the shift-lever boot!

Figure. 5.0



Radius at the bottom!

2.3

Install the complete shifter knob on to the shift rod and align it so that the front is facing the front of the vehicle (in the direction of travel). Push the shifter knob down on to the shift rod against the inner stop in order to prevent it from subsequently loosening. Use an Allen wrench to tighten one of the set screws to the shift rod. If the shift rod has a small diameter. use the longer set screw (14 mm); with a large shift rod diameter, the shorter set screw (10 mm) should be used.

2.4.1

Plug the connecting data cable into the side of the small electronics box and attach it – the adhesive strip is provided on one side of the box for this purpose – to a point that is protected from being bumped or moved in anyway (Figure 6).

2.4.2

The box must be secure and not subsequently slip!



Important note:

It is recommended that the electronics box is attached to a flat surface (GASLOCK logo at the top); the direction of the cable is irrelevant. The electronics box should not be mounted near heating elements or air ducts to prevent heating or cooling. It should not be in a location that is subject to cooling due to drafts or air conditioning vents. Take care not to mount the electronics box to any part of the vehicle subject to getting hot. Under certain circumstances, the heat can deform the box to the extent that the position of it can chance.

According to our experience, this preferred mounting position ensures maximum accuracy and stability without incorrect gear displays!

Temperature differences between the shifter knob and electronics box can cause an intermittent incorrect display.

Attention:

After initial use, the position of the shifter knob must not be altered **(do not turn, etc.)** because this can cause malfunctions. If this should happen, the shifter knob must be reprogrammed.

Any subsequent change in the position of the shifter knob or electronics box will result in incorrect display!

3 Programming the Indy-Cator shifter knob

2.4.3

Connect the red wire to a power cable that is only energizer ("hot") when the ignition is on (such as power to the cigarette lighter or similar device) and connect the black wire to a suitable ground. Be careful routing these wires to prevent any subsequent damage! Therefore installation by experienced persons or by a specialized vehicle repair shop is recommended!

2.4.4

After connecting the red wire to a power source and the black wire to ground, connect the electronics box to the shifter knob by plugging the other end of the connecting data cable into the small socket at the bottom of the shifter knob. Be very careful to plug the connector in correctly to prevent damage or malfunctions!

No liability is accepted for any damage attributed to incorrect installation!

3.1

Starting the procedure

PLEASE READ THE FOLLOWING CAREFULLY!

After turning on the car's ignition and the Indy-Cator is on, the user is always asked whether the programming procedure should be started. When the two segments at the top left of the display flash (see Fig.7.13). put the car into first gear. If the car is already in first gear, proceed to the next step. The segments at the bottom right of the display will then start to flash (see Fig. 7.14), which tell you to put the car into fourth gear. When you do this, the system remembers the gearshift positions of these gears. You are then asked again to reselect gears 1 and 4.

If this is successful, the programming procedure can start. If gears 1 and 4 are not selected at this time, the programming procedure is stopped.

3.2 Perform the programming procedure:

Switch on ignition! All gear positions of the system are displayed by a number or segment flashing on the display in sequence. Then, the indicated gear must be selected by the user. Gear selection takes place in two phases as the vehicle is positioned on two different gradients. In the first phase, the vehicle should be facing forward on a gradient and positioned in the opposite direction for the second phase.





The end of the first phase is indicated by the display of a line (see Fig. 7.12). Between the two phases, you have about 60 seconds to change the position of the vehicle. The lapse of this time is indicated on the display by a downward count from 9 to 0.

The gear positions are taught in the phases in the following order: gears

1 to 6 (see Figs. 7.2 - 7.7), reverse gear (see Fig. 7.11), center neutral position (see Fig. 7.15), left neutral position (see Fig. 7.16), left neutral position here) and right neutral position (see Fig. 7.17 keep in position here).

If the vehicle does not have a sixth gear, obviously it cannot be selected. When requested in the first phase to select the sixth gear, the gear shift lever should remain in the previous position and not moved. The system recognizes the shift lever has not moved and skips to the second phase.



This also applies in the absence of a fifth gear. Once the programming phase is completed, the system stores the gear positions and subsequently starts to recognize the gear position (flashing ceases). However, a programming teach phase can be initiated each time the system is switched on by putting the gear shift lever in first and fourth gears twice (see Section 3.1). The programming procedure can be interrupted by switching off the power supply by turning off the ignition. This can be helpful if errors are made during the procedure.



Each time the ignition is switched on, the display flashes for several seconds. If the first and fourth gears are not selected within the given time (as described), the electronic display changes to a normal mode the last programming assignment is displayed.

4 Troubleshooting

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Fault	Remedy	
 No function/display does not light 	Check power supplyCheck cable	
A capital E is indicated on the display	• Faulty/interrupted cable between shifter knob and electronics box.	
• Programming procedu- re does not start	 Select alternative combination 2nd and 5th gear for programming (instead of 1st and 4th) 	
Wrong gear is displayed	 Repeat programming procedure if necessary. Select alternative combination 2nd and 5th gear for programming. Check for horizontal/flat mounting position of electronics box Check shifter knob for correct alignment 	
• Gear display changes for no apparent reason	 Mount electronics box at a different location where there is no temperature fluctuation. 	

5 Spare parts

Spare parts can be ordered quickly and easily according to the following list:

GL03-0037	Clamping ring
GL08-0024	Set screw, long
GL08-0023	Set screw, short
GL07-0115	Connecting data cable
GL98-0251	Electronics box with cable assembly

6 Disposal

The device should be disposed of using appropriate facilities and not in domestic waste!

7 Complaints

In case of a complaint or warranty claim, the warranty card and proof of purchase must be enclosed when returning the device!

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