# INDY-CATOR®

## **Digital Gear Display**



**Operating Instructions** 



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### **About INDY-CATOR**

First, we would like to explain to you the function of the digital gear display:

It works according to the principle of forming the difference between two position sensors. As a result, the selected transmission is displayed for you. The electronic system recognises even the smallest changes of positions of the gear lever knob. It works completely independently of the vehicle transmission. Only if a position change is safely recognised as a transmission change will the display change.

This may take 1 - 1.5 s.

This transmission display is to serve as an aid. We assume no warranty for correctness of the display.

If the transmissions are not displayed correctly for some reason, please repeat programming with the motor/gear at operational temperature. Depending on vehicle type and gear position, extreme vehicle acceleration may lead to short-term reading changes on the display. This is based on the physical characteristics of the sensors and does not constitute any malfunction.

## **Package content**

- 1 Gear lever knob with retention ring (1x)
- 2 Data cable (1x)
- 3 Reference box with power supply lines (1x)
- 4 Hexagon socket wrench (1x)
- Grub screws long and short (2x, one each)
- 6 Cable terminal clamps (2x)
- 7 Cable ties (1x)



## Gear lever knob installation

#### 1.1.1

Disassembly of the original gear lever knob and gear boot: Install LCD gear lever knob and gear boot (the data cable at the gear lever knob must not be damaged). The gear boot can be placed between the gear lever knob and the retention ring (to cover it) or below the retention ring. For this, the retention ring can be pushed on in two different directions (fig. 2 and 3) with radius up or radius down.

#### 1.2.1

Connection reference box (3): The reference box should not be glued on before programming of the colour. Connect the plus line from the ignition and ground line to the power supply lines of the reference box (red to 12 Volt from the ignition, black to ground). The included cable clamps can be used here. Finding possible reference box position. De-grease this surface for gluing on the reference box (3) and clean it. Data cable connection between the LCD gear lever knob and reference box (3) (it is unimportant, which one of the two sockets is used). Fasten data cable to the gear lever with cable tie as strain relief!

#### 1.2.2

Switch on ignition briefly to check display or connections. Reprogrammed display shows a rotating or running bar.



Figure 3



## **Programming**

(Programmes individual gear lever positions of your car – for gear recognition and display)

#### 2.1.1

The vehicle should be placed on a surface that is as level as possible before programming. Since the vehicle has to start in first gear after programming (light acceleration), please ensure now that there are no obstacles (20 metres straight on are sufficient) and that traffic is not impaired.

#### 2.1.2

Start the engine – gear lever set to idle!

#### 2.2.1

#### LCD Colour selection:

(Colour change by position change of the reference box). Keep the reference box button (3) pressed for approx. 5 s until "C" is displayed, then let go of the button.

Tilt the reference box forwards and backwards in your hand to start colour selection. The colour changes in small nuances when the reference box position is adjusted slightly. Briefly confirm desired colour by pressing the push-button on

the reference box once. Display now indicates a transverse bar:

#### 2.3.1

Fastening the reference box:

The box should be placed as horizontally as possible in the area of the switching lever. Labelling points up. (Fig. 4)

#### 2.3.2

Remove protective foil from the adhesive strips, position reference box and press on firmly. Verify that the gear lever is still set to idle. Now acknowledge the box position by briefly pressing the push-button.



#### 2.3.3

Gear programming now starts. Starting in first gear, the display now shows all gears in sequence as flashing figures.

# **2.3.4** Display:

- 1 ---- please switch to first gear
- 2 ---- please switch to second gear
- 3 ----> please switch to third gear
- 4 ----> please switch to fourth gear
- 5 please switch to fifth gear (if the vehicle only has 4 gears – ignore display and leave it in 4th gear)

- please switch back to first gear
  - Now accelerate the vehicle in first gear (start driving as normal).

Once the display recognises acceleration, a running bar is displayed:



After a few seconds, the number of the active gear is displayed – here it is the number 1.

Your Indy-Cator gear display is now programmed and ready for operation. Please switch off the motor. (Programming remains saved with the display/ ignition switched off). The gear boot and any applicable covers in the car can now be re-assembled.

## **Troubleshooting**

If re-programming is required, press the button of the reference box until "C" is displayed and start again as described on page 6. If the previously selected colour is to be retained, please confirm it with the button without moving the reference box again.

Display only shows running ring Gears not programmed Programme gears Gears are not recognised – displayed incorrectly Gear lever loose? Reference casing loose? Re-programme gears Changing LCD display brightness Too many display instruments connected to one reference box Vehicle battery voltage too low