

# P9-MS01 Adjustable Shift Lever

## Foreword

The Project Nine P9-MS01 Shift Lever is the first completely adjustable lever available for the Porsche 928. The knob height may be adjusted to four different positions with the included hardware, and beyond with a custom insert. The throw is adjustable from stock to any ratio desired with commonly available spacers in 1mm increments. The pivot bushings are made from Igus Z material, the best available for this application, and have been press-fit into the housing for your convenience.

## Shift Throw

The factory 928 shift lever has a base spacing of 25mm between the upper and lower pivot point on the lever. By increasing this distance, the throw of the lever will be decreased. With no spacers installed, the shifter will have the stock 25mm pivot spacing, and thus stock throw. Common 10mm OD spacers for M5 screws (available from McMaster and other sources) can be used to increase the pivot spacing. The upper and lower body have 1.5mm deep counter bores to positively capture the spacer, so please include this 3mm of height when selecting your spacer. A 13mm spacer has been included with your kit, this would increase the pivot spacing to 35mm, for example

$$13\text{mm spacer} - 3\text{mm (counter bores)} + 25\text{mm (factory spacing)} = 35\text{mm Pivot Spacing}$$

Increasing the pivot distance will have a direct however non-linear reduction in the overall shifter throw. This is further compounded by the possible reduction in height of the shifter. Assuming the stock shifter height is retained, consider these values when selecting spacers:

25mm pivot spacing (no spacer)	=	Stock throw
30mm pivot spacing (8mm spacer)	=	16.67% reduction in throw
35mm pivot spacing (13mm spacer)	=	28.57% reduction in throw
40mm pivot spacing (18mm spacer)	=	37.50% reduction in throw

Shortening the knob height will amplify the effect. Other variables include the condition of rear shift coupler, and any modifications to the front link, or use of a front link alternative, such as the Project Nine P9-MS02 Pivot Clamp.

## Contents

- 1x Shift Lever
- 1x Upper Shifter Body
- 1x Lower Shifter Body
- 2x M5x25 cap screws
- 2x M5x35 cap screws
- 2x M5x12 cap screw with nylon locking patch
- 2x M4x4 nylon tipped set screws
- 2x M10x13 aluminum spacers
- 2x 16x10x1mm stainless spacer
- 2x Stainless E-clips
- 1x M5x5 low-profile cap screw

## Assembly

1. Insert the Shift Lever into the Upper Shifter Body groove, with the two recessed holes in the lever facing out. Adjust to the desired height, and install the two M5x12 nylon patched cap screws. (This height is easily adjusted later in the car)
2. Install the M5x5 lower cap screw in the M5 threaded hole of the Lower Shifter Body. (this is optional when used with shifter spacers, and is used as a locating feature when in the stock 25mm pivot spacing configuration)
3. Install spacers, if desired, in the counterbored between the Upper and Lower Shifter Body.
4. Thread the appropriate M5 Cap Screw through the Lower Shifter Body and up through any installed spacer, into the Upper Shifter Body (NOTE – when using spacers, the longer M5x35 screw is preferred, with no spacers the M5x25 is ideal)
5. Install the two M4x4 set screw in the M4 holes located on either side of the shifter body. Do not over tighten.
6. Consulting the factory workshop manual if necessary, remove the factory shift knob/boot, and lever from the car. Save all the stock hardware for preservation, none will be used for installation of the Project Nine Shift Lever.
7. Clean the pivot pins, and remove any grease or dirt. The new shift bushings do not require any lubrication.
8. Install the assembled Project Nine Shift Lever with the lever mounting screws facing the driver. The Igus bushings may be tight, but do not use any lubricant to install over the pivot pins.
9. With the Shift Lever in place, slide the 16x10x1mm spacers over the pivot pins
10. Install the new stainless e-clips on the pivot pin
11. Slide the shift knob and boot over the shift lever. (NOTE – the new shift lever was designed for a very positive retention of the stock knob. If frequent knob removal is desired, or if there is difficulty in installation, consider rubbing a small amount of talc or similar dry lubricant on the shift lever)

## Troubleshooting

The factory shift lever used spring plates, split bushings, and several other techniques to isolate the shifter. More vibration will be transmitted in the new lever. These techniques employed in the stock design may have caused some wear on either the pivot pin or shoulder of the rods. If this has occurred, there may be some lateral slop in the new shifter. This is easily resolved by adding shims between the circlip and the provided 16x10x1mm spacer. Shims are available from McMaster and other sources in thicknesses as narrow as 0.1mm.

Any questions can be directed to [info@projectninellc.com](mailto:info@projectninellc.com)