

SUPERMIATA

NA NB MX5 Miata Tecna
Installation and setup tips

We know you want to install your shiny new Tecnas then *maybe* read the instructions. Please read this sheet first. You will get better performance, ride, and handling by doing it right the first time. 😊

We recommend obtaining a Mazda factory Service Manual or equivalent. They can be found on eBay in either hard copy or digital form.

Full compression = suspension fully bottomed, wheel as high in the fender as it will go.
Full droop = suspension fully extended, wheel hanging as low as it will go.

Removing bushing preload **Do not skip this step or you will have a 4x4!**

The OEM rubber control bushings are like springs. Push up or down on the arms and the bushings resist the movement. From the factory, the bolts are torqued at OEM ride height. After installing the shocks with control arms bolts loose/removed, move each corner to the approximate ride height you will run and torque the control arm bolts. It does not need to be millimeter accurate, just not at full droop. This may require disconnecting the sway bar and putting a jack under that corner to push it up.

Upper shock mount washers

Place one washer under the M8 nut on each mount stud. Leaving this washer off may keep the nut from fully seating.

Install shocks without adjusting preload

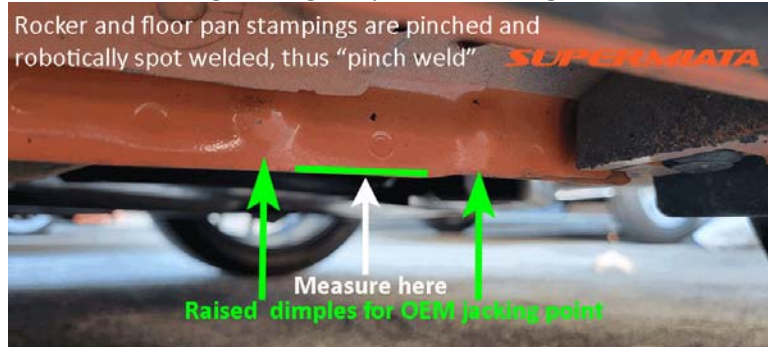
Tecna preload comes preset at a height that should allow you to drive it right away, near the middle of the functional range. It is important to drive the car a mile or two to let the bushings settle before dialing in your preferred ride height. There is no “best” or recommended ride height, just a functional range you can use. Fronts are the longer shocks.

Alignment

For best results, perform an alignment after replacing the shocks. Ensure the control arm bolts are torqued at your chosen ride height before proceeding with alignment. Refer to our [Supermiata Alignment](#) specs. We recommend our **Street Alignment** for Tecna 6/4kg and our **Dual Duty Alignment** for Sport 9/6kg.

Adjusting ride height

Measure ride height using the pinch weld height method

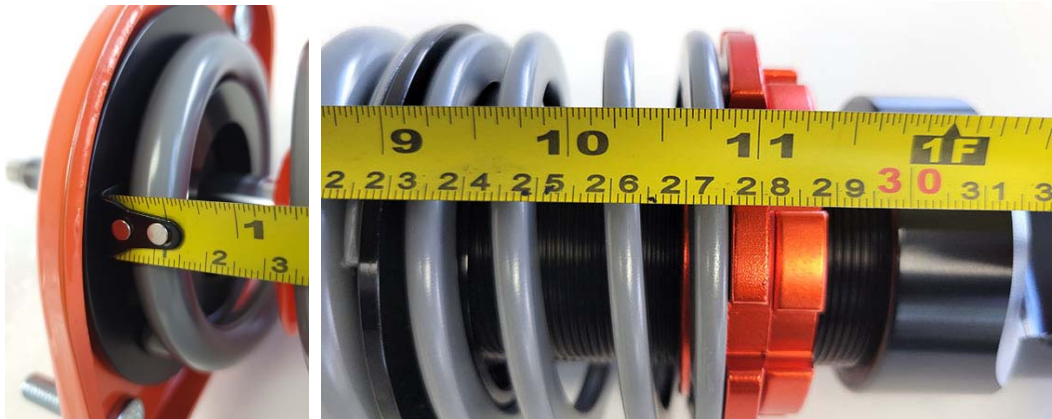


Approximate pinch weld height range is 120mm to 150mm

Below 125mm on heavier cars may cause frequent bottoming and increase body roll. If your car kicks back too sharply after hitting a bump, it might be bottoming. Increase preload or damping to reduce bottoming. Heavier cars will need more preload than lighter cars. Most cars will be able to reach the taller 145mm pinch weld height, some very light builds will be able to go a bit higher. Do not exceed max preload number as that risks damaging the springs.

Adjust preload by turning the lockring in opposite direction (left) of spring perch to unlock it. One full rotation of spring perch equals about 2mm of ride height change. Turn perch right to raise car (increase preload), left to lower car (decrease preload).

Preload measurement is the length of the entire spring stack as shown, in mm



Preload?

Preload is partially compressing the spring at full droop. This does not compromise shock function in any way, despite what you might have read on the internet. We measure preload as spring length at full droop. More preload means the spring assembly is shorter, so the preload measurement is a lower number. Example: 220mm is more preload than 230mm

Preload standard in box

- 235mm Front 6kg
- 245mm Rear 4kg
- 240mm Sport Front 9kg
- 275mm Sport Rear 6kg

Max Preload

- 214mm Front 6kg
- 212mm Rear 4kg
- 225mm Sport Front 9kg
- 237mm Sport Rear 6kg

One full turn on preload collar equals about 2mm ride height change (pinch weld)
1.5mm thread pitch on shock

Damping adjuster knobs or remote cables

2mm allen key to install oversize black damping adjuster knob or optional remote adjuster cables. Ok to use small silver knob if preferred.



Damping adjustment

Full right (CW) is full stiff. There are no recommended settings, that's why they are adjustable. If you have no idea where to begin, start with full soft (CCW) and experiment. OK to have front and rear on different settings, whatever suits your driving preferences.

Tire clearance

Tire to outer fender clearance is not affected by ride height or coilover design. Tecna are designed to allow full suspension travel which means the tops of the tires tuck inside the outer fender at full compression. If your wheel/tire combo overlaps the outer fender, it will do so regardless of what shock or ride height you have. If your wheel/tire combo hits the outer fenders, the fix is swapping to a wheel/tire combo that fits inside the fender, not just adding preload to make them hit the fenders less often. Tecnas are optimized for these tire diameters:

185/60/14

205/50/15

225/45/15

245/40/15

Front fender liners

Tecna will allow some tires to touch the plastic front fender liners at full compression. If this creates a problem, you can either remove the fender liners or add our [shock mount spacers](#).

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