**Product Engineering** 

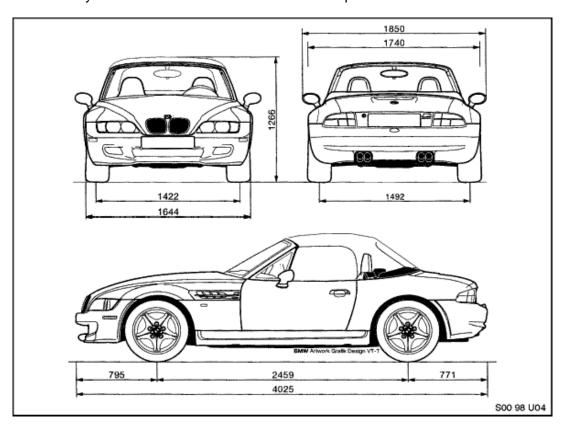
#### **M** roadster General Information SUBJECT:

MODEL: 1998 M roadster

**General Information:** 

GROUP 00

The 1998 M roadster is the latest BMW Motorsport offering for the US market. The 240 horsepower S52 B32 engine and five speed manual transmission from the M3 has been has been installed in the Z3 roadster body along with numerous changes to the suspension, brakes, and other systems to add the roadster to the Motorsport line.



#### **Specifications:** General

Curb weight, lb./kg. 3084/1377 Weight distribution, front/rear, % 51/49 Wheelbase, in./mm 96.8/2459

Track, front/rear, in./mm 55.0/1422 / 58.7/1492

Length, in./mm 158.5/4025 Width, in./mm 68.5/1740 Height, in./mm 49.8/1266

# **Engine**

Type S52 B32 Power @ RPM, hp. 240 @ 6000 Torque @ RPM, lb.-ft. 236 @ 3800

### Drivetrain

Transmission ZF Type C, 5 speed

Ratios: 1st 4.21:1

2nd 2.49:1 3rd 1.66:1 4th 1.24:1 5th 1.00:1

Reverse 3.85:1

Final Drive Limited slip

Ratio 3.23:1

# Body:

The most visible changes to the body are:

- -- A new front bumper cover with enlarged central air inlet for increased cooling capacity and side inlets for increased brake cooling.
- -- A new trunk lid with license plate and lights mounted on the rear panel, and a relocated trunk release and BMW logo.
- -- A new rear bumper cover without license plate and with cutouts for the four exhaust tips.
- -- M style outside mirrors and chrome trimmed grills in front fenders.

The trunk floor has been redesigned to accommodate the dual mufflers and centrally located battery. This required elimination of the space for the spare tire. The tool kit and space for a jack and lug wrench are on either side of the battery.

# Suspension:

The front upper strut mounts have been offset to provide increased caster, and utilize a reinforcement plate between the mount and body. The subframe, control arms and mounts, stabilizer bar, struts, and spindles are unique to the M roadster.

The rear subframe, semi-trailing arms, stabilizer bars and shocks are also modified for the M roadster.

A ZF variable ratio steering rack, similar to the one used in the M3, is used.

### **Brakes:**

The brake calipers and discs from the M3 have been installed, which increases the diameter of the front discs over the Z3 2.8 from 286 mm to 315 mm, and the rears from 272 mm to 312 mm.

Initially there will only be an ABS (Teves Mark IV-G) system offered, since there is no ABS/ASC system currently available that meets the requirements of this car.

#### Wheels and Tires:

The M roadster comes with Dunlop SP Sport 8080E 225/45 ZR 17 front and 245/40 ZR 17 rear tires mounted on 7.5 x 17 and 9.0 x 17 Road Star style wheels that are exclusive to this car.

Because of the size of the brake assemblies the space saver spare used in other Z3 models will not fit on the M roadster, and due to space limitations a full size spare will not fit in the trunk.

## Rear Axle:

A limited slip differential with a 3.23:1 ratio is standard. The rear cover of the final drive unit is equipped with a block of cooling fins that extend below the housing for additional cooling.

**Interior:** Two tone sports seats are standard, which are color coordinated with the console center panel,

dash cover, and steering wheel inserts.

There is an additional row of gauges below the heater controls consisting of an analog clock and an oil temperature gauge. A voltmeter is planned for installation in the center position in the future.

The chrome accent trim that comes in the Z3 2.8 is supplemented by numerous other chrome interior pieces, such as door handles, shift boot retainer, and center console controls and gauge bezels.