

GROUP 62 B 62 02 96 Woodcliff Lake, NJ May 1996
Instruments Product Engineering

SUBJECT: Maximum Permissible Speedometer Error

MODELS: All

**General
Information:**

A certain amount of "speedometer advance" is necessary to compensate for negative tolerances in tire diameter, electronic controls, and other factors. This advance reduces the risk of the speedometer displaying a speed that is less than the vehicle's actual speed.

The amount of speedometer advance can be calculated by inputting a frequency (using the DIS Tester, "Kombi Test Schedule") that corresponds to a given speed and noting the speed that is indicated by the speedometer. The maximum permitted speedometer advance is 10% of the actual (input) speed plus 2.4 mph.

Example:

Actual Speed = 50 mph

$50 \text{ mph} \times 10\% = 5 \text{ mph}; 5 \text{ mph} + 2.4 \text{ mph} = 7.4 \text{ mph}$

Therefore, the permissible displayed speed is 50 to 57.4 mph.

(Note: The displayed speed must never be less than the actual speed).

No repairs should be attempted if the speedometer advance is within $10\% + 2.4 \text{ mph}$.

NOTE: The amount of speedometer advance has no effect on recording of accumulated mileage in the odometer display. The odometer records total mileage digitally and does not incorporate any "advance" tolerances.

**Warranty
Status:** Information Only.

[Copyright (c) BMW of North America, Inc.]

GROUP 62 B 62 02 96 Woodcliff Lake, NJ May 1996
Instruments Product Engineering

SUBJECT: Maximum Permissible Speedometer Error

MODELS: All

**General
Information:**

A certain amount of "speedometer advance" is necessary to compensate for negative tolerances in tire diameter, electronic controls, and other factors. This advance reduces the risk of the speedometer displaying a speed that is less than the vehicle's actual speed.

The amount of speedometer advance can be calculated by inputting a frequency (using the DIS Tester, "Kombi Test Schedule") that corresponds to a given speed and noting the speed that is indicated by the speedometer. The maximum permitted speedometer advance is 10% of the actual (input) speed plus 2.4 mph.

Example:

Actual Speed = 50 mph

$50 \text{ mph} \times 10\% = 5 \text{ mph}; 5 \text{ mph} + 2.4 \text{ mph} = 7.4 \text{ mph}$

Therefore, the permissible displayed speed is 50 to 57.4 mph.

(Note: The displayed speed must never be less than the actual speed).

No repairs should be attempted if the speedometer advance is within $10\% + 2.4 \text{ mph}$.

NOTE: The amount of speedometer advance has no effect on recording of accumulated mileage in the odometer display. The odometer records total mileage digitally and does not incorporate any "advance" tolerances.

**Warranty
Status:** Information Only.

[Copyright (c) BMW of North America, Inc.]